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ABSTRACT

In July 1988, Milwaukee Area Technical College (MATC) initiated the Systematic Assessment of Leavers (SAL), a 2-year, 2-phase research activity to develop and implement a monitoring process to identify the personal, demographic, institutional, and environmental factors associated with leaving the college. The target populations of the study were 6,392 students who were admitted to MATC in 1988-89 and 884 students who graduated from MATC, transferred to other institutions, did not return to MATC, or withdrew voluntarily from MATC during 1988-89. Study findings included the following: (1) there were no major educational or demographic differences between the entering students or the leaving students; (2) the reasons given by students for withdrawing in he middle of the semester were largely personal, such as personal or family illness, and changes in education plans; (3) the most important reason for leaving cited by nonreturning students was financial, though personal problems were also important to this group; (4) although students who left the college indicated that they were satisfied with student services, a majority did not use these services; and (5) there were large differences in the proportion of withdrawing and nonreturning students by ethnic group, with fewer minorities persisting than whites. Appendixes provide the MATC student progress flowchart, a synthetic causal model of student attrition, SAL database categories, student surveys, and an ASSET educational planning form. (JMC)

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EXECUTIVE SUMMARY

To assist in the development and implementation of student retention improvement efforts, the Department of Research, Planning, & Development identified in 1987 student attrition as a research priority area for the next five years and thus initiated the Research on the Improvement of Student Retention (RISR) project. The RISR project is a three-stage, longitudinal research commitment at MATC that focuses on the systematic study of retention/attrition issues related to both those students who persist in their educational endeavor or persisters and those students who leave the college for any reason whatsoever or leavers.

Started in July, 1988, RISR Stage One consists of the Systematic Assessment of Leavers (SAL) research study. The SAL study is a two-year, two-phase, research activity to develop and implement a monitoring process, which, when fully implemented, will facilitate the continued identification, analysis, and reporting on both the nature of and the relationships among personal, demographic, institutional, and environmental factors associated with MATC student leavers.

The SAL process is based on a proposed MATC student flow model. In this model, depending on one's educational goal, a student is admitted either to a credit course program or to a non-credit course program. Afterwards, the student either goes on pursuing such a goal or leaves. Leavers are further divided into graduates, attainers, transfers, stop-outs, withdrawals, and nonreturnees.

In general, the population of the SAL study consists of (a) students who took the ASSET placement test during the academic years 1988/89 and 1989/90 and (b) MATC student leavers from two yearly cohorts: Cohort 89 and Cohort 90.

More particularly, the target population of phase I of the SAL study was composed of (a) 6392 admitted applicants of the academic year 1988/89 who took the ASSET placement test and (b) 884 students in cohort 1989 who graduated from MATC, transferred to other institutions, did not return to MATC, or withdrew voluntarily from MATC during the academic year 1988/89. Other 1988/89 admitted applicants than those who took the ASSET test were not included in this population of phase I because of lack of pertinent data.

The ASSET Educational Planning Form, version 1986, by the American College Testing was used to gather background and educational planning information from preleavers and enrolled students who took the accompanying ASSET placement test during orientation sessions.

Respective versions of an Institutional Assessment survey, corresponding to graduating, transferring, withdrawing, and nonreturning students, were developed to assess leavers' employment information, future educational plans, reasons for leaving, relevance of MATC training and perceptions about institutional services and processes. These instruments were thoroughly pilot tested and revised for cultural, racial, and sex biases and for readability at the 6th grade level during the academic year 1988/89.



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From June to September, 1989, the Institutional Assessment instruments were administered to graduating, transferring, nonreturning, and withdrawing students, respectively, by means of two mailings that followed each other with 3-4 weeks intervals. Due to the low return rates obtained with this survey, care should be taken when applying any conclusion or interpretation of results beyond the surveyed leavers who responded to the survey.

The following specific research questions were addressed in the SAL study, Phase I. Some relevant findings are presented below, following the respective question.

1. Were there any differences among demographic and academic performance characteristics of preleavers (individuals who took the ASSET test but did not enroll at MATC) and enrollees who took the ASSET test in 1988/89?

Comparison of 21 educational and demographic characteristics of 1988/89 ASSET tested preleavers and enrollees showed no major differences between these two groups. Contrary to the common assumption that ASSET scores should have predictive validity, ASSET Reading, Language, or Numeric scores are not predictive for any minority group or whites. ASSET tests are used as a diagnostic tool to admit students to programs and not necessarily to assess later performance.

The largest difference found between them occurred in those from both groups who were high school students at the time they took the ASSET: 19.6% preleavers as compared to 7.9% enrollees.

2. What were the reasons for discontinuing studies at MATC, as perceived by nonreturning and withdrawing students of the cohort 1989?

The reasons given by students for withdrawing in the middle of the semester were largely personal, such as personal or family illness, education plan change, other personal. Some 13.6% withdrawee respondents indicated grade problems.

The most important reason for leaving cited by nonreturning respondents was financial problems. Personal problems were also important to nonreturning students.

3. What were the overall perceptions of cohort 1989 leavers regarding institutional and student services?

The overall perception of leaver respondents regarding institutional and student services was satisfied. However, a majority of leavers did not utilize student services. This is particularly true of nonreturnees.

4. Were there any patterns of differences or similarities among responses of leaver groups of cohort 1989, regarding educational plans, work patterns, and usage of institutional services?

Responses among leaver respondent groups were more similar than different. However, nonreturnees tended to be more different in responses from withdrawing, transferring, and graduating students. Most responses were positive.



5. What were the characteristics of persisters as compared to leavers of cohort 89?

The most significant finding in Phase I regarding this question was that there were large differences in the proportion of withdrawing and nonreturning students by ethnic group: Fewer minorities persisted than nonminorities. This result is consistent with other MATC retention studies. The question of differences in characteristics of persisters and leavers will be emphasized in Phase II of the study.

6. What was the relationship between student characteristics and ASSET scores?

Large differences in reading, language, and numeric ASSET scores by ethnic group were found.

- 7. What was the relationship between ASSET scores and grade point averages?
 - a. White students had increasing GPAs with increasing reading, language, or numeric ASSET scores.
 - b. Asians and Hispanics had mean GPAs above 2.0 regardless of reading or language ASSET scores.
 - c. Asians and Whites had mean GPAs above 2.0 regardless of ASSET numeric score.
 - d. Blacks had mean GPAs below 2.0 regardless of reading, language, and numeric ASSET scores.
 - e. When grouped by last high school attended, MATC students had increasing Mean GPAs with increased ASSET numeric, reading, and language mean scores. Students in the lowest grouping had mean GPAs below 2.0 for all three ASSET tests. Students with ASSET scores above the following scores had mean GPAs above 2.0: Numeric 12 or above, Reading 15 or above, Language 40 or above.



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CHAPTER I

INTRODUCTION

A. THE COLLEGE

Located in the city of Milwaukee, Wisconsin, the Milwaukee Area Technical College (MATC) is an urban, two-year technical college whose four campuses serve primarily a metropolitan area of approximately 1 million people. During the academic year 1987/88, MATC had a total of 59,250 registered students (unduplicated headcounts) attending credit and noncredit courses.

Out of this total, 10,626 (17.9%) students were enrolled in over 120 Certificate, Diploma, and Associate Degr. a programs offered regularly by the college. 5,560 (52.3%) of these program students were females. The remaining 82.1% of the student total attended avocational, continuing education, and other noncredit courses offered by the college instructional divisions and extensions (Department of Research, Planning, & Development, 1989).

B. THE ATTRITION PROBLEM

As long as it is related to graduation or short-term educational goal accomplishment, student attrition is regarded as desirable at any college. But, when students leave the college for reasons other than graduation or goal attainment, student attrition usually becomes a problem with negatively economic, social, and educations implications for both the institution and the students.

Over the years, as in many other publicly supported colleges across the country, MATC students have been increasingly facing limited access to educational programs, because of the college financial burden associated with lost revenues from declining enrollment and drying up of federal, state, and local government funds. Furthermore, by departing prematurely (for whatever personal, social, or economic reason) from their college program of study, MATC students have been losing educational opportunities, thus becoming parts of the attrition statistics.

To compound the problem, on the one hand, while resources allocated to education have dwindled further, the educational needs of the community have multiplied. Nowadays, for instance, the mission of a two-year urban technical college includes not only the traditional aspects of college transfer education and occupational and vocational education, but also adult basic literacy, developmental education, continuing education, and recreational education. On the other hand, different constituencies-legislature, institutional accreditation bodies, employers, community leaders, special interest groups, and parents--have been increasingly demanding more accountability about how well those limited resources are spent to carry out this multifaceted mission.



Under these circumstances, educational resources are frequently allocated according to some ranking pattern of needs which imposes undesirable constraints upon the amount and variety of educational services that can be offered by the college. Again, MATC students are increasingly becoming parts of the attrition statistics, because they may find it very difficult to match satisfactorily their educational or career aspirations with the available educational opportunities.

Unfortunately, this attrition problem is more prevalent in those individuals with the most educational needs such as economically disadvantage minority students or academically disadvantage students in pre-occupational or developmental programs. For example, Basic Skills and College Parallal programs at MATC had an average attrition rate of 63% over a two-year period, 1986/88, (Department of Research, Planning & Development, 1988a). Overall, during the same two-year period, minority students showed an average course completion rate of 52%, as opposed to an average course completion rate of 80% exhibited by non-minority students (Department of Research, Planning & Development, 1988b).

In order to be responsive to growing concerns about student attrition from the community, the college, and the students, MATC is committed to investigate the extent of its attrition problem by means of gathering information about those students who leave the college. Proper attention to these concerns at MATC should be based upon knowledge about the nature of and the relationships among the personal, demographic, institutional, and environmental factors associated with MATC leavers.

C. THE RESEARCH ON THE IMPROVEMENT OF STUDENT RETENTION PROJECT

To assist in the development and implementation of student retention improvement efforts, the Department of Research, Planning, & Development identified, in 1987, student attrition as a research priority area for the next five years and thus initiated the Research on the Improvement of Student Retention (RISR) project. The RISR project is a three-stage, longitudinal research commitment at MATC that focuses on the systematic study of retention/attrition issues related to both those students who persist in their educational endeavor or persisters and those students who leave the college for any reason whatsoever or leavers.

Started in July, 1988, RISR Stage One consists of the Systematic Assessment of Leavers (SAL) research study. The SAL study is a two-year, two-phase, research activity to develop and implement a monitoring process that, when fully implemented, will facilitate the continued identification, analysis, and reporting on both the nature of and the relationships among personal, demographic, institutional, and environmental factors associated with MATC student leavers. The purpose of this report is to describe Phase I of the SAL study, the first year of activities and findings of the RISR project.

Next, Stage Two of the RISR project is a one-year research activity during which the SAL process and database will be expanded into a multicohort, follow-up and tracking system that will include information about both program student leavers and persisters.



Finally, in RISR Stage Three, during a two-year period and based on the information gathered in the database of this follow-up and tracking system, several short-term and long-term studies regarding student outcomes, institutional effectiveness, and theoretical model testing will be planned and implemented.

D. DEFINITIONS

The National Center for Higher Education Management Systems (NCHEMS) has proposed an Outcome Structure framework within which retention is regarded as any of four kinds of student outcomes, among several other student outcomes: (a) graduation on time; (b) graduation sometime; (c) term, year, or course completion; or (d) personal goal attainment (Lenning, Beal, & Sauer, 1980). This notion of retention, as a type of student outcome, is comprehensive and consistent across all levels of postsecondary education. Based on this notion of retention, the following attrition-related concepts were adapted and expanded from the set of common categories developed by Terenzini (1987).

<u>Persister</u> - A person who is continuously enrolled in an approved program of study--certificate, diploma, associate degree, or developmental--until ontime/sometime completion of requirements for graduation.

<u>Leaver</u> - A program student who, for whatever reason leaves and does not return under the period of study.

<u>Stopout</u> - A program student who leaves the college for at least one period of study and enrolls later to resume the same program or another program of study.

Nonreturnee - A program student who completes a given term without completing his program and who does not return the following term, as expected, to the college. A nonreturnee may become a stopout if this student returns anytime after one term to complete the same program.

<u>Withdrawal</u> - A program student whose enrollment termination is individually/institutionally requested before the end of the term under study. Individual withdrawals can be formal or informal.

When formally withdrawing, the student applies voluntarily for enrollment termination in some or all of the registered courses. An individually informal withdrawal means that the student simply walks-off from the college without any warning. An informal withdrawal is converted to formal withdrawal by administrative action by the end of the semester.

Institutionally initiated withdrawals--suspensions and dismissals--are administrative actions taken unilaterally by the college to cancel/prevent temporarily or permanently the partial or complete student's course registration.



<u>Transfer</u> - A program student who, after completing the period under study, leaves the college to continue his or her educational goal in another college. The transferring student may or may not have completed the program of study at MATC before leaving.

Attainer - A program student who leaves after completing a noncredit program that may be any combination of courses. An attendance or participation certificate may or may not be awarded upon completion of these kinds of non-credit programs. Students in continuing education, avocational courses, and short term seminars fall in this category.

<u>Preleaver</u> - A firstly admitted program student who does not complete course registration, as expected, during the term under study.

E. REVIEW OF THE LITERATURE

A search of the literature on retention/attrition at the postsecondary level through the Educational Resources Information Clearinghouse (ERIC) system and other publications revealed that:

1. Over the years, studying attrition at the two year-college level has not been necessarily the norm. Since 1957, starting with Iffert's seminal work on national student dropout rates, the majority of college attrition studies has been conducted at four-year colleges and universities (Keim, 1982). Thousands of empirical studies have led into the development of several theoretical causal models of attrition--person-role fit model (Rootman, 1972); sociological dropout process (Spady, 1971); commitment-to-persisting model (Tinto, 1975); and student-faculty transactional model (Pascarella; 1980)--which have provided insight into the factors and circumstances associated with the retention/attrition process in four-year colleges and universities.

However, many scholars and practitioners have argued that, for several reasons, it is inappropriate to extrapolate or generalize results obtained at a four-year college setting to that of a two-year college.

To begin with, four-year colleges differ at least in institutional missions, student body compositions, and academic programs from those of two-year colleges (Voorhees, 1986; Phillips, 1982; Walleri, 1981).

Next, due to the complex relationships of the numerous variables involved in the attrition/retention process, neither could a single theoretical model of attrition be used in every situation nor would a simple explanation be possible in most cases (Lenning, Beal and Sauer, 1980).

Lastly, Wallery (1981) has contended that some theoretical constructs like the student-institution fit notion, developed to explain interactions at four-year college settings, might not be easily adaptable to the two-year college situation. According to him, more and diverse educational needs were served in a two-year college than in a four-year college. He also concluded that several practical



considerations like location, cost, smaller size class, and more personal attention, were easier to find in a small college than in a major university setting.

2. Since the late 1960s, given the effects of high attrition rates and declining enrollment upon the financial stability of two-year colleges, attrition studies have been steadily increasing in number. As a result, a consistent account of students' characteristics, of institutional and environmental factors, of interactional attributes, of common notions and definitions, and of credible research practices has been accumulated.

According to Keim (1982), most attrition studies at the two-year college level had been empirical in nature. Furthermore, he proposed that most of these studies had focused in one of two lines of inquiry: (a) the study was oriented toward determining those factors that might be related to the student's success/failure in completing an education goal; or (b) the study tried to assess the student's reasons for dropping courses or leaving the college. More recently, Sheldon (1983) suggested that studies with emphasis on retention rates might constitute a third type of attrition study.

3. Generally, factors related to attrition might be divided into student characteristics, institutional factors, and student-institution interactions.

Regarding student characteristics, numerous researchers indicated that the best predictor of student's college performance had been the student's past academic record and academic ability (Keim, 1982; Lenning, Beal, & Sauer, 1980). Similarly, more often than not, findings revealed that some of the most important reasons for leaving cited by nonreturning students--employment opportunities, transportation problems, moving, family problems or financial difficulties--were associated with environmental or personal factors which were not under direct institutional control (Sheldon, 1983; Friedlander, 1981; Lenning, Beal, & Sauer, 1980).

As far as institutional factors are concerned, Wallery (1981) reported that most attrition research consistently had indicated that student involvement was a key player in retention rate improvements. However, he contended that other institutional characteristics such as image, mission, religious affiliation, cost, and housing, which had been identified in the literature as relevant to attrition, were of secondary importance at two-year colleges. He argued that [s]tudents attend[ed] a community college because of low cost, convenient location or for particular programs... (p. 18). Among institutional services, counseling had been reported as having positive effects on retention, even though most students' use of counseling had been relatively low (Lenning, Beal, & Sauer, 1980).

Since the late 1970s, student-institution interactions seemed to be the convergent theme in contemporary attrition research. It has been the consensus of many attrition scholars that the experiential transactions between the individual and the educational institution constituted the main factor that determined student outcomes. In



other words, the lack of congruence or fit between the student and the college was the most important factor to understand why some students persisted while others left (Wallery, 1981; Lenning, Beal, & Sauer, 1980; Nebraska Coordinating Commission for Postsecondary Education, 1978).

4. To address the complexity of the attrition research problem at the two-year college level, many scholars have been advocating the use of multivariate analysis techniques and of longitudinal studies as well as the generation of theoretical frameworks appropriate to the study of processes and outcomes of two-year colleges (Adelman, Ewell & Grable, 1989; Doan, 1986; Terenzini, 1982; Bean, 1982; Bean, 1979, Nevada Coordinating Commission for Postsecondary Education, 1978). And yet, fewer theoretical models have been designed and successfully tested during the 1980s for explaining the attrition process at the two-year college level (Vorhees, 1986; Phillips, 1982).

Of particular interest to this study is the Synthetic Causal Model of Attrition developed by John Bean (1979). Bean's causal model of attrition (see Appendix B) depicts the causal linkages among four types of variables--background variables, objective interactions with the organizations, environmental factors, and student outcomes and attitudes--and the student's intent that precedes the decision to leave.

In this attrition model, background variables are defined as prior-toinitial-enrollment facts about demographic, educational, and personal aspects of the student. Objectives interactions with the organization consist of those interaction elements that conform the student's objective experience of the varied institutional aspects (admission requirements, academic performance, peer group and faculty interactions) and services (registration, counseling, career planning, cultural programs, athletics, and student organizations). Environmental variables are external factors that act concurrently, without institutional control, upon the student's intention to stay or leave like unemployment, college transfer opportunities, and military draft. Attitudinal and outcome variables are basically students' judgmental assessments of their educational experiences at the institution: perceptions of instructional quality; certainty of career choices and educational goals; and loyalty and commitment to the institution (Bean, 1982).

In summary, given the implications for institutional decision-making, accountability, and planning, the multiplicity of factors and complexity of relationships involved in the attrition process, and the longitudinal nature of the attrition/retents on process and outcomes, the study of the institutional and individual effects of student attrition at MATC, requires not only the development and implementation of a formal process for gathering data but also the use of multivariate quantitative techniques for descriptive and explanatory purposes.



CHAPTER II

METHODOLOGY

A. PURPOSE

The Systematic Assessment of Leavers (SAL) is a two-year, two-phase developmental research study that constitutes the first stage of the RISR longitudinal project. The SAL study is primarily purported to investigate and report about:

- The distinctive demographic, personal, and environmental factors as well as the institutional perceptions that characterize MATC leavers.
- The reasons for leaving MATC of non-graduating students from College Parallel, Crossover, Certificate, Diploma, and Associate Degree programs.
- The relationships between characteristic profiles of non-graduating leavers and their reasons for leaving MATC.

The first phase of the SAL study, process development and pilot testing, was carried out at the four MATC campuses from July, 1988 to June, 1989. Because of the developmental nature of the process, this first phase of the study will focus on the first two research questions. This report summarizes below the findings and conclusions of Phase I of the SAL study.

Phase II, the second-year or continuation phase of the SAL study, will be implemented from July, 1989, to June, 1990. Along this second phase, the SAL process, that was developed and pilot-tested in Phase I, will be fine-tuned at MATC for implementation purposes. At the same time, the SAL model will be field-tested at five other districts of the Wisconsin Vocational, Technical and Adult Education System. The field-testing activities will help to assess the SAL model's potential for adoption at other similar two-year colleges in Wisconsin.

B. THE SYSTEMATIC ASSESSMENT OF LEAVERS MODEL

According to Ewell (1985), in order to facilitate student tracking and follow-up, ctudents should be classified as elements of a cohort-survival model that describes the student progress flow within a postsecondary institution. Consequently, an MATC Student Academic Progress Flow model of the student's persisting or leaving outcomes across time has been proposed (see flow chart in Appendix A).

In this model, depending on one's educational goal, a student is admitted either to a credit course program or to a non-credit course program. Afterwards, the student either goes on pursuing such a goal or leaves. Leavers are further divided into <u>Graduates</u>, <u>Attainers</u>, <u>Transfers</u>, <u>Stopouts</u>, <u>Withdrawals</u>, and <u>Nonreturnees</u>.

Dismissed and suspended students do not appear explicitly in the model because they can be subsumed, in most cases, within the withdrawals

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category. Also, preleavers do not appear in the model for the sake of simplicity. This chart depicts one yearly cycle of the student's outcomes after initial admission. The arrows indicate the possibility that some leavers--stop-outs--will return eventually to attempt the fulfillment of their educational goals.

During Phase I, Bean's (1982) Synthetic Causal Model of Attrition was used as a theoretical framework to dentify relevant variables from which several survey instruments were developed, pilot tested and used to gather data concerning MATC leavers' educational experiences, perceptions about MATC support services, and future educational plans.

Once fully implemented, during the third stage of the RISR longitudinal project, the SAL process and database will be used to conduct research studies that would ascertain the level of fitness of the Bean's attrition model to the two-year college situation in Wisconsin.

C. POPULATION

For the purpose of the SAL study, new and transfer students firstly admitted to a credit course program--Crossover, College Parallel, Diploma, or Associate Degree--at MATC during the academic years of 1988/1989 and 1989/1990 will be respectively placed in cohort 89 and cohort 90. Thereafter, every new student will be assigned to a cohort as they are admitted into programs. Every cohort will be systematically followed-up for six consecutive academic years after which the cohort information will be retired from the active file and stored permanently for further analysis purposes.

In general, the population of the SAL study consists of (a) students who took the ASSET placement test during the academic years 1988/89 and 1989/90 and (b) MATC student leavers from two yearly cohorts: cohort 89 and cohort 90.

More particularly, the target population of Phase I of the SAL study was composed of (a) 6,39? admitted applicants of the academic year 1988/89 who took the ASSET placement test and (b) 884 students ir cohort 1989 who graduated from MATC, transferred to other institut? ... did not return to MATC, or withdrew voluntarily from MATC during the academic year 1988/89. Other 1988/89 MATC admitted applicants different from those who took the ASSET test were not included in this population of Phase I because of lack of pertinent data.

D. INSTRUMENTATION AND DATA COLLECTION

Based on Bean's synthetic causal model of attrition, some 250 relevant data elements were identified and selected (see Appendix C). An advisory committee of ten members assisted in this variable identification and selection. Members of the advisory committee represented the following MATC areas: admissions, counseling, placement, testing, data processing, instructional deans, general education faculty, Systems for Success, occupational areas faculty, and Research, Planning & Development.



Survey instruments were then developed and pilot-tested with these data elements. In addition, it was decided that other follow-up survey instruments--Leavers Follow-ups--would be constructed and tested at later times as needed. Also, a commercially available instrument already in use at MATC was chosen to gather educational planning data. These instruments are listed in the following table and briefly described below.

INSTRUMENT

INFORMATION TYPE

■ Ceneral Background

Demographic & academic.

ASSET Educational Planning

Demographic & educational plans

■ Institutional Assessment

Withdrawing student Former student

Graduating student

Transferring student

Reasons for leaving and opinions on programs, services & other institutional aspects.

■ Leaver Follow-up

Demographic, economic, educational

The General Background instrument is, in fact, a well-defined list of data elements containing student's demographic, personal, educational, and academic information that has been primarily obtained by several means during the enrollment process--admission, orientation, and registration-and stored in the Student Management Information System (SMIS) or MATC mainframe computer student database. This information can be downloaded from SMIS in the mainframe system to personal computers for data analysis and reporting purposes.

The ASSET Educational Planning form, version 1986, by the American College Testing (see Appendix D) was used to gather background and educati al planning information from preleavers and enrolled students who took the accompanying ASSET placement test during orientation sessions.

Separate versions of the Institutional Assessment survey, corresponding to graduating, transferring, withdrawing, and nonreturning students, respectively, were developed to assess leavers' employment information, future educational plans, reasons for leaving, relevance of MATC training and perceptions about institutional services and processes (see Appendix E). These instruments were thoroughly pilot tested and revised for cultural, racial, and sex biases and for readability level at the 6th grade level during the academic year 1988/89.

From June to September, 1989, the Institutional Assessment survey instruments were administered to graduating, transferring, nonreturning, and withdrawing students, respectively, by means of one initial mailing and one follow-up mailing. The two mailings followed each other with 3-4 weeks intervals.



Survey forms were mailed first class, along with a cover letter signed by the executive dean of the college and a business reply envelope to all leavers of the cohort 1989. A confidential identification code was printed in the survey form of every leaver surveyed, in order to keep track of leaver respondents. This confidential code served as key variable to merge the survey data with the background and academic information available in the mainframe database student information system.

Survey forms with address corrections were mailed back as they were received. Some four weeks later, a second mailing of the survey forms with a different cover letter was mailed to those nonrespondent leavers who were not marked as undeliverable by the post office. Because of time and resource constraints, survey data collection was limited to these two mailings.

Completed survey data were coded and entered manually into the institutional database. Proportions of usable responses after the second mailing were respectively 51.1% for graduates; 10.8% for nonreturnees; 36.0% for withdrawals; and 47.2% for transfers.

The Institutional Assessment survey data corresponding to stop-out students will be collected by means of the former (nonreturning) student instrument after the first year of implementation. Leaver Follow-up instruments will be later developed and administered to alumni three times, at two-year intervals, during the six years of the cohort's active life.

E. DATA ANALYSIS

Low return rates, like those obtained above, pose various problems for data analysis. First, because of concerns about low internal validity and external validity, violation of the randomness assumption may be a possible problem that precludes the use of inferential statistics in the analysis of these data.

Second, because of the effect of nonrespondent bias, more often than not, low return rates of former student mail surveys tend to be significantly biased "...in ways that are directly related to the purpose of the research." (Fowler, 1984, p. 49).

Third, the issue of sample representativeness in these cases cannot be resolved by examining the distributions of respondents and nonrespondents along some available demographic variable, like sex, ethnicity, or economic status; because it has not been proven that response bias depends on any known demographic characteristics (Schiltz, 1987).

Thus, a simple descriptive analysis of frequencies is the least controversial alternative indicated for data analysis in this case, in order to gain some insight into these survey results. Under these circumstances, care should be taken when applying any conclusion or interpretation of results beyond the surveyed leavers who responded to the survey.



General background information as well as ASSET placement test scores and educational planning form data were also downloaded from the mainframe computer database to a personal computer to perform some descriptive statistical frequencies and crosstabulation analysis that may help to ascertain leavers' characteristics and relationships.

For the purpose of this report and to guide the discussion and interpretation of results of the Systematic Assessment of Leavers, Phase I, the following specific research questions were derived from the three aforementioned general research questions:

- 1. Were there any differences among demographic and academic performance characteristics of preleavers and enrollees who took the ASSET placement test in 1988/89?
- 2. What were the reasons for discontinuing studies at MATC, as perceived by nonreturning and withdrawing students of the cohort 1989?
- 3. What were the overall perceptions of cohort 1989 leavers regarding institutional and student services?
- 4. Were there any patterns of differences or similarities among responses of leaver groups of cohort 1989, regarding educational plans, work patterns, and usage of institutional services?
- 5. What were the characteristics of persisters as compared to leavers of cohort 89?
- 6. What was the relationship between student characteristics and ASSET scores?
- 7. What was the relationship between ASSET scores and grade point averages?

The relationships among student characteristics, ASSET scores, and retention will be investigated in Phase II of the SAL study, as more information about leavers will become available.



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CHAPTER III

RESULTS

A. GENERAL DESCRIPTIVE ANALYSIS OF 1988/89 PRELEAVER AND ENROLLEE GROUPS

1988/89 Preleaver Group or simply preleavers is constituted by MATC admitted applicants who took the ASSET test but did not enroll at MATC during the academic year 1988/89.

1988/89 Enrollee Group or simply enrollees is composed by MATC students who took the ASSET test and by ASSET test participant who were first-time enrolled at MATC during the term of their respective admission in 1988/89. Students with approved credit program codes were assigned to cohort 89. Students without program codes, who were traically enrolled in some individual associate degree or diploma courses, basic skills courses, and/or other developmental courses without assigned program, would be assigned to a yearly cohort as they would be admitted into a credit program.

The following characteristics have been analyzed to determine differences between preleavers and enrollees.

Gender Age English as a Second Language Amount of Education Planned Educational Plans at MATC Full-Time/Part-Time Job Grades Expected First Semester Enrollment Time, Day and/or Evening Reason for Attending MATC First Term Credit Load Planned Career Choice Certainty Program Choice Cert inty Employment While Enrolled Program Title Indication of Need for Help with: Financial Aid Learning English Reading Skills Writing Skills Math Skills Study Skills Learning Disability

Overall, few meaningful differences were found between 1988/89 ASSET tested preleavers and students. The following ten tables show selected item responses from the ASSET Educational Planning form and ASSET numeric, reading, and language scores of both preleavers and enrollees for comparison purposes.



AGE AND ASSET TEST SCORES

			ASSET Scores					
Mean		Mean	Mean	Mean				
Group Numeric	<u>Age</u>	<u>Language</u>	Reading					
Preleavers n = 2,648	23.8	41.15	21.87	16.48				
Enrollees n = 3,454	25.0	42.05	22.82	17.24				

Preleavers were somewhat younger. About 41% of preleavers were under 20 years of age whereas about 32% of enrolled students were under 20 years old. There were only small differences between ASSET scores of preleavers and of enrolled students. However, mean scores of enrollees are slightly higher than preleavers.

GENDER AND ETHNIC ORIGIN

Group	<u>Female</u>	Black %	Amer Ind	White %	Hispanic %	<u>Asian</u> %	<u>Unknwn</u> %
%		<i>R</i> 9	*	<i>\</i> 0	*	<i>f</i> 6	6
Preleavers n = 2,609	53.2	36.2	. 8	53.8	4.7	2.6	1.9
Enrollees n = 3,402	57.3	32.7	1.2	56.5	5.0	2.4	2.1

The percentage of males in the preleaver group was slightly higher than that of enrolled male students (46.8% compared to 42.79% respectively). The percentage of minority preleavers was slightly higher than that of minority enrollees (44.3% compared to 41.3% respectively).

ENGLISH AS A SECOND LANGUAGE

Group	English F	irst	Second La	nguage <u>%</u>
Preleavers	2,432	94.4	145	5.6
Enrollees	3,164	93.3	204	6.1

There were small differences between the two groups in English language usage.



REASON FOR ATTENDING MATC

.	Prelea	vers	<u>Enrollees</u>		
Reason	<u> </u>	<u> </u>	<u>n</u>	%	
Get New Job	1,480	58.2	1,910	57.8	
Job Advancement	334	13.1	435	13.2	
Transfer 4-yr College	288	13	430	13.0	
General Education Reg	79	3.1	117	3.5	
Basic Skills	75	3.0	117	3.5	
Personal	184	7.2	167	5.1	
Other	102	4.0	127	3.8	

There were only small differences between groups on reason for attending.

PROGRAM CHOICE CERTAINTY

Group	Very n	Sure	Fairly n	Sure	Not S	ure %
Preleavers	1,645	67.5	673	27.6	119	4.9
Enrollees	2,144	66.8	901	28.1	166	5.2

There were only small differences between the two groups on program certainty.

CAREER CHOICE CERTAINTY

Group	Very 9	SureX	<u>Fairly</u> n	Sure %	<u>Not</u> n	Sure
Preleavers	1,298	61.7	680	32.3	125	5.9
Enrollees	1,650	59.8	909	33.0	198	7.2

There were only small differences between the two groups on career certainty.



AMOUNT OF EDUCATION PLANNED

	Prele	avers	Enrollees		
	<u> </u>	_%	<u>n</u>	_%	
Classes Only	121	4.7	128	3.8	
1-Year/2-Year Diploma	9 93	38.5	1,427	32.6	
2-Year College Degree	1,037	40.2	1,427	42.4	
4-Year College Degree	284	11.0	513	15.2	
Grad/Professional	142	5.5	200	5.9	

There were relatively small differences in amount of education planned. A higher percentage (38.5%) of preleavers planned to enroll in diploma programs than enrollees (32.6%). In contrast, a higher percentage of enrollees (15.2%) planned for four-year degree than preleavers (11.0%).

EDUCATIONAL PLANS AT MATC

_	2-Year Degree		Certif/ <u>Diploma</u>		Undecided		No Gradu- <u>ation Plans</u>	
Group	<u>n</u>	<u> %</u>	<u>n</u>	<u> </u>	<u>n</u>	<u> </u>	<u>n</u>	<u> %</u>
Preleavers	1,381	53.3	842	32.5	259	10.0	107	4.1
Enrollees	1,910	57.0	969	28.9	302	9.0	167	5.0

A large majority (about 85%) of both groups planned to complete programs at MATC.

NEED HELP WITH FINANCIAL AID

	<u> Yes </u>		Ma	ybe	No	
Group	<u>n</u>		<u>n</u>	<u>x</u>	<u>n</u>	%
Preleavers	1,546	61.9	458	18.7	485	19.4
Enrollees	1,942	60.2	540	16.7	746	23.1

There were small d fferences between groups though slightly more enrolled students (23.1%) than preleavers (19.4%) indicated no need in financial aid help.



HIGH SCHOOL COMPLETION

	Prele n	avers <u>%</u>	Enrol n	lee.;	To	<u>%</u>
High School Diploma	1,449	55.8	2,375	70.2	3,924	64.0
GED	492	19.0	589	17.4	1,081	18.1
Proficiency	0	0	3	.1	3	.1
Completion Certificate	4	. 2.	13	.4	17	. 3
Foreign High School	23	. 9	19	.6	42	. 7
Nongrad High School	118	4.5	117	3.5	235	3 .9
High School Student	509	19.6	268	7.9	777	13.0

Preleavers were found in a larger percentage than enrollees to be high school students at the time that they took the ASSET test. This was the only large difference found between preleavers and students who enrolled.

Analysis of 1988/89 ASSET Participants by Ethnic Group

Out of 6,392 individuals who participated in the 1988/89 ASSET testing program, 2,663 (41.6%) were preleavers. As shown in the table below, excluding American Indian preleavers, the differences among percentages of the other preleaver ethnic groups were 3% or less. The percentage of total minorities enrolled was 55% compared to 58% of nonminorities enrolled.

MEAN AGE AND ASSET SCORES OF PARTICIPANTS BY ETHNICITY

	<u>n</u>		Mean Age	Mean Language <u>Score</u>	Mean Reading Score	Mean Math <u>Score</u>
BLACK	2.4					
Preleavers Enrollees	942 <u>1,108</u>	46.0 54.0	25.27 26.15	36.99 37.84	17.23 17.78	13.20
Total	2,050	31,0	20.15	37.04	17.70	13.79
AMERICAN INDIAN						
Preleavers	22	35.5	23.95	42.33	25.76	17.90
Enrollees Total	<u>40</u> 62	64.5	25.68	42.74	23.13	17.56
Iotai	02					
WHITE						
Preleavers	1,401	42.0	22.67	44.75	25.81	18.98
Enrollees Total	$\frac{1.917}{3,318}$	58.0	24.18	45.18	26.71	19.60
HISPANIC						
Preleavers	122	42.0	25.13	37.17	18.12	14.64
Enrollees Total	<u>171</u> 293	58.0	26.00	38.87	18.11	14.71
ASIAN						
Preleavers	68	46.0	24.36	34.84	13.97	16 .03
Enrollees Total	$\frac{81}{149}$	54.0	26.42	35.17	14.38	16.14
MINORITY						
Preleavers	1,177	45.0	25.09	37.09	17.37	1 3.67
Enrollees	1.432	55.0	26.18	37.97	17.83	14.21
Total	2,609					
NONMINORITY						
Preleavers	1,401	42.0	22.67	44.75	25.81	18.98
Enrollees	$\frac{1}{3}, \frac{917}{310}$	58.0	24.18	45.18	26.71	19.60
Total	3,318					



ASSET Reading Scores

A score of 20 in the ASSET reading test is the minimum score requirement for admission in nearly all MATC associate degree programs. Only 33.7% of minorities who were tested in 1988-89 scored 20 or more in reading while 80.2% of white students scored 20 or more in this test.

Nonminorities or Whites had mean reading scores of 25.81 for preleavers and 26.71 for enrollees.

As shown in the table above, all minorities except American Indians (25.76% for preleavers and 23.3% for enrollees) had reading scores below 20 with total minority mean reading scores of 17.37 for preleavers and of 17.83 for those enrolled. There were no large differences between reading scores of preleavers and enrollees.

ASSET Language Scores

A score of 40 in the language test might be considered minimum for doing college work at MATC. The mean language scores of minorities on the language test were all below 40, except American Indians whose mean scores were 42.33 and 42.74 for preleavers and enrollees respectively. Mean language scores for all minorities were 37.09 for preleavers and 37.97 for enrolled students. Mean language scores for nonminorities or Whites were 44.75 for preleavers and 45.18 for enrolled students.

ASSET Numeric Scores

This section of the ASSET battery tests only arithmetic knowledge and skills. A high numerical score indicates only that the student is prepared to take algebra. Additional ASSET tests in beginning, intermediate, and college algebra are available to determine students further course placement in advanced college mathematics.

Generally, students with ASSET numeric scores below 19 should enroll in an arithmetic fundamentals course before taking any other mathematics course that involves algebra. A total of 55.5% of the white students and 21.1% of the minority students showed numerical scores of 19 and above.

All minority groups of preleavers and enrollees had mean numeric scores below 19. Mean numeric score for minority preleavers was 13.67 and mean numeric score for enrolled students was 14.21. White preleavers had a mean numeric score of 18.98 and enrollees a mean numeric score of 19.60.

Differences between preleavers and enrolled students were small in all of 21 characteristics measured in the ASSET Educational Planning form. Summary results by ethnic groups are shown in the following thirteen tables for all ASSET test participants.



NUMERICAL SCORES BY ETHNIC GROUP THE 1988-89 COHORT OF ASSET TEST TAKERS

The analysis below is based upon the results of the ASSET numerical skills test administered to the program applicants during both semesters of 1988-89.

NUMERICAL SCORES BY ETHNIC GROUP 1988-89 COHORT OF ASSET TEST TAKERS DESCRIPTIVE ANALYSIS ASSET TESTING

Raw Scores	0-11	12-18	19+	<u>Total</u>
Black	881	930	399	2,210
% Total	39.9%	42.1%	18.1%	_,
American Indian	13	24	29	6 6
% Total	19.7%	36.4%	43.9%	00
White	368	1,162	1,912	3,442
% Total	10.7%	33.8%	55.5%	5,442
Hispanic	102	119	92	313
% Total	32.6%	38.0%	29.4%	313
Asian	37	66	60	163
% Total	22.7%	40.5%	36.8%	103
Minority	1,033	1,139	580	2,752
% Total	37.5%	41.4%	21.1%	£,/J£

Students with ASSET numerical scores above 19 were prepared to enter Associate Degree programs. Fifty-five percent of the White students and 21% of the minority students had ASSET numerical scores above 19.



READING SCORES BY ETHNIC GROUP THE 1988-89 COHORT OF ASSET TEST TAKERS

The analysis below is based upon the results of the ASSET reading skills test administered to the program applicants during both semesters of 1988-89.

READING SCORES BY ETHNIC GROUP 1988-89 COHORT OF ASSET TEST TAKERS DESCRIPTIVE ANALYSIS ASSET TESTING

Raw Scores	0-9	10-14	15-19	20+	<u>Total</u>
Black	242	612	617	742	2,213
% Total	10.9%	27.7%	27.9%	33.5%	
American Indian	1	5	19	41	66
% Total	1.5%	7.6%	28.8%	62.1%	
White	52	203	429	2,763	3,447
% Total	1.5%	5.9%	12.4%	80.2%	
Hispanic	41	67	85	120	313
% Total	13.1%	21.4%	27.2%	38.3%	
Asian	43	63	32	25	163
% Total	26.4%	38.7%	19.6%	15.3%	
Minority	327	747	753	928	2,755
% Total	11.9%	27.1%	27.3%	33.7%	

The distribution of ASSET reading scores by ethnic group above shows the following. A score of 20 in reading can be considered a minimum for doing college work and is therefore the minimum score for nearly all Associate Degree programs. Only 33.7% of the minorities tested in the fall of 1988-89 had reading scores of 20 or more, while 80.2% of the White students fell in this category.

The second category (15-19) is considered for students to enter the Crossover program. Only 12.4% of the White students, while 27.3% of the minority students had reading scores in this category.

Students in the third category (10-14) of reading scores are usually recommended for Basic Skills Level II (a kind of Pre-Crossover) or certain less rigorous diploma programs. Twenty-seven percent of the minority students and approximately six percent of the White students were in this category.

The lowest category (0-9) represents students who would be in Basic Skills Level I or Literacy Training. Nearly 12% of the minority students and 1.5% of the White students fell into this category.



ETHNIC BACKGROUND OF THE 1988-89 COHORT OF ASSET TEST TAKERS

The analysis below is based upon the 6,392 program applicants at MATC who took the ASSET tests during 1988-89.

1988-89 COHORT OF ASSET TEST TAKERS
ETHNIC BACKGROUND
DESCRIPTIVE ANALYSIS ASSET TESTING

Frequency	Percent
2,219	34.7%
68	1.1%
3,488	54.6%
313	4.9%
164	2.6%
65	1.0%
75	1.2%
	2,219 68 3,488 313 164 65

The 6,392 students who took ASSET tests during semester 1 and semester 2 of 1988-89 included a higher percentage of minority students than in the total college enrollment. This was because of the large numbers of White students enrolled in evening courses and without being admitted to programs.



Ethnicity AND GENDER OF THE 1988-89 COHORT OF ASSET TEST TAKERS

The analysis below is based upon the responses to the ethnic and gender items by the MATC program applicants who took the ASSET tests during 1988-89.

1988-89 COHORT OF ASSET TEST TAKERS ETHNICITY BY GENDER DESCRIPTIVE ANALYSIS ASSET TESTING

Ethnicity	Male	<u>Female</u>	Total
Black	814	1,400	2,214
	36.8%	63.2%	35.5%
American Indian	34	33	67
	50.7%	49.3%	1.1%
White	1,650	1,832	3,482
	47.4%	52.6%	55.8%
Hispanic	150	163	313
	47.9%	52.1%	5.0%
Asian	105	59	164
	64.0%	36.0%	2.6%
Total	2,753	3,487	6,240
	44.1%	55.9%	100.0%

Although the majority of this group was female, the distribution of gender varies by ethnic group. The Black group had the lowest percentage of males enrolled (36.8%) followed by White (47.4%), Hispanic (47.9%), and American Indian (50.7%). The Asian group had the highest percent of males (64.0%) enrolled.



AGE OF THE 1988-89 COHORT OF ASSET TEST TAKERS IN EACH ETHNIC GROUP

The analysis below is based upon the responses to the age item by the MATC program applicants who took the ASSET tests during 1988-89.

1988-89 COHORT OF ASSET TEST TAKERS ETHNICITY BY AGE DESCRIPTIVE ANALYSIS ASSET TESTING

Ethnicity	Under	20-29	<u>30-39</u>	<u>40-49</u>	50 and Over	<u>Total</u>
Black	537	1,068	474	118	22	2,219
	24.2%	48.1%	21.4%	5.3%	1.0%	35.5%
American						
Indian	25	27	12	3	1	6 8
	36.8%	39.7%	17.6%	4.4%	1.5%	1.1%
White	1,295	1,524	482	152	35	3,488
	37.1%	43.7%	13.8%	4.4%	1.0%	55.8%
Hispanic	76	162	55	15	5	313
	24.3%	51.8%	17.6%	4.8%	1.6%	5.0%
Asian	28	97	² 2	6	1	164
	17.1%	59.1%	19.5%	3.7%	0.6%	2.6%
Total	1,961	2,878	1,055	294	64	6,252
	31.4%	46.0%	16.9%	4.7%	1.0%	100.0%

The White students starting programs in the fall of 1988 were generally younger than the minority students. Approximately 37% of the White and American Indian students were under age twenty. Only 24% of the Black and Hispanic students and 17% of the Asian students were under age twenty. The largest percentage of Asian (59.1%), Hispanic (51.8%) and Black (48.1%) students were in the 20 to 29 age group. White (43.7%) and American Indian (39.7%) were in the 20 to 29 age groups at rates slightly higher than in the under 20 age group.



REASON FOR ATTENDING MATC OF THE 1988-89 COHORT OF ASSET TEST TAKERS

The analysis below is based upon the 6,063 responses to the reason for attending MATC item by the MATC program applicants who took the ASSET tests during 1988-89.

1988-89 COHORT OF ASSET TEST TAKERS REASON FOR ATTENDING MATC DESCRIPTIVE ANALYSIS ASSET TESTING

Ethnicity	Job Preparation or Advancement	General Ed or <u>Transfer</u>	English/ Math Skills	Personal or Other	<u>Total</u>
Black	1,402	341	110	289	2,142
	65.5%	15.9%	5.1%	13.5%	35.3%
American	37	18	1	10	66
Indian	56.1%	27.3%	1.5%	15.2%	1.1%
White	2,568	515	60	262	3,405
	75.4%	15.1%	1.8%	7.7%	56.2%
Hispanic	203	49	20	29	301
	67.4%	16.3%	6.6%	9.6 %	5.0%
Asian	97	28	13	11	149
	65 . 1%	18.8%	8.7%	7.4%	2.5%
Total	4,307	951	204	601	6,063
	71.0%	15.7%	3.4%	9.9%	100.0%

The majority of each ethnic group chose job preparation or job advancement as the reason for attending MATC.



PROGRAM CERTAINTY OF THE 1988-89 COHORT OF ASSET TEST TAKERS

The analysis below is based upon the 5,853 program applicants at MATC who took the ASSET tests during 1988-89.

1988-89 COHORT OF ASSET TEST TAKERS PROGRAM CERTAINTY
DESCRIPTIVE ANALYSIS ASSET TESTING

Ethnicity	Very <u>Sure</u>	Fairly <u>Sure</u>	Not <u>Sure</u>	Total
Black	1,459	518	100	2,077
	70.2%	24.9%	4.8%	35.5%
American Indian	42	21	2	65
	64. 6%	32.3%	3.1%	1.1%
White	2,185	962	150	3, 297
	66.3%	29.2%	4.5%	56.3%
Hispanic	181	82	18	281
	64.4%	29.2%	6.4%	4.8%
Asian	69	39	25	133
	51.9%	29.3%	18.8%	2.3%
Total	3,936	1,622	295	5,853
	67.2%	27.7%	5.0%	100.0%

All ethnic groups were sure of their program choice. The Asian students were less sure of their program choice than all of the other groups.



CAREER CERTAINTY OF THE 1988-89 COHORT OF ASSET TEST TAKERS

The analysis below is based upon the 5,036 responses to the career certainty item by the MATC program applicants who took the ASSET tests during 1988-89.

1988-89 COHORT OF ASSET TEST TAKERS CAREER CERTAINTY
DESCRIPTIVE ANALYSIS ASSET TESTING

Ethnicity	Very <u>Sure</u>	Fairly <u>Sure</u>	Not <u>Sure</u>	<u>Total</u>
Black	1,164	534	108	1,806
	64.5%	29.6%	6.0%	35.9%
American Indian	30	18	1	49
	61.2%	36.7%	2.0%	1.0%
White	1.,669	953	179	2,801
	59.6%	34.0%	6.4%	55.6%
Hispanic	154	85	20	259
	59.5%	32,8%	7.7%	5.1%
Asian	60	37	24	121
	49.6%	30.6%	19.8%	2.4%
Total	3,077	1,627	332	5,036
	61.1%	32.3%	6.6%	100.0%

Students were slightly less sure of their career than their program. The Asian students, again, showed the least surety of all groups.



AMOUNT OF EDUCATION PLANNED BY THE 1988-89 COHORT OF ASSET TEST TAKERS

The analysis below is based upon the 6,149 responses to the total education planned item by the MATC program applicants who took the ASSET tests during 1988-89.

1988-89 COHORT OF ASSET TEST TAKERS AMOUNT OF EDUCATION PLANNED DESCRIPTIVE ANALYSIS ASSET TESTING

Ethnicity	Classes Only	1-Yr/2-Yr Diploma	2-Year Col Deg	4-Year <u>Col Deg</u>	Grad/ <u>Prof</u>	<u>Total</u>
Black	?12	824	796	284	174	2,190
	5.1%	37.6%	36.3%	13.0%	7.9%	35.6%
American	12	23	20	8	5	68
Indian	17.6%	33.8%	29.4%	11.8%	7. 4 %	1.1%
White	109	1,139	1,605	443	132	3,428
	3.2%	33.2%	46.8%	12.9%	3.9%	55.7%
Hispanic	14	121	98	51	24	308
	4,5%	39.3%	31.8%	16.6%	7.8%	5.0%
Asian	10	65	49	20	11	155
	6.5%	41.9%	31.6%	12.9%	7.1%	2.5%
Total	257	2,172	2,568	806	346	6,149
	4.2%	35.3%	41.8%	13.1%	5.6%	100.0%

A larger percent of minority students intended to get graduate or professional degrees than White students. A higher percentage of Hispanic students intended to get four-year degrees than the other ethnic groups. In each ethnic group the majority of students intended to get less than a baccalaureate.



EDUCATIONAL PLANS AT MATC OF THE 1988-89 COHORT OF ASSET TEST TAKERS

The analysis below is based upon the 6,141 responses to the educational plans at MATC item by MATC program applicants who took the ASSET tests during 1988-89.

1988-89 COHORT OF ASSET TEST TAKERS EDUCATIONAL PLANS AT MATC DESCRIPTIVE ANALYSIS ASSET TESTING

Ethnicity	2-Year <u>Degree</u>	Certif/ <u>Diploma</u>	Undecided	No Grad Plans	<u>Total</u>
Black	1,137	766	184	102	2,189
	51.9%	35.0%	8.4%	4.7%	35.6%
American Indian	32	16	10	7	65
	49.2%	24.6%	15.4%	10.8%	1.1%
White	2,028	933	316	155	3,432
	59.1%	27.2%	9.21%	4.5%	55.9%
Hispanic	153	104	38	11	306
	50.0%	34.0%	12.4%	3.6%	5.0%
Asian	52	61	27	9	149
	34.9%	40.9%	18.1%	6.0%	2.4%
Total	3,402	1,880	575	284	6,141
	55.4%	30.6%	9.4%	4.6%	100.0%

Eighty-six percent of these students intended to earn a two-year degree or a diploma. Black (86.9%), White (86.5%), and Hispanic (84.0%) students had similar degree and diploma total percentages although White students were more likely to select a two-year degree. Asian (18.1%) and American Indian (15.4%) students indicated the highest percentage of undecided responses, while Black students (8.4%) indicated the lowest percentage of undecided responses.



NEED HELP WITH FINANCIAL AID OF THE 1988-89 COHORT OF ASSET TEST TAKERS

The analysis below is based upon the 5,937 responses to the financial aid item by the MATC program applicants who took the ASSET tests during 1988-89.

1988-89 COHORT OF ASSET TEST TAKERS NEED HELP WITH FINANCIAL AID DESCRIPTIVE ANALYSIS ASSET TESTING

Ethnicity	Yes	<u>Maybe</u>	No_	<u>Total</u>
Black	1,640	232	254	2,126
	77.1%	10.9%	11.9%	35.8%
American Indian	45	5	13	63
	71.4%	7.9%	20.6%	1.1%
White	1,616	730	958	3,304
	48.9%	22.1%	29.0%	55.7%
Hispanic	221	46	33	300
	73.7%	15.3%	11.0%	5.1%
Asian	104	22	18	144
	72.2%	15.3%	12.5%	2.4%
Total	3,626	1,035	1,276	5,937
	61.1%	17.4%	21.5%	100.0%

Over 70% of the minority students indicated that they needed help with financial aid while less than half of the White students requested help. Black students at 77.1% represented the largest percentage requesting help with financial aid. The actual number of White students (1,616) and Black students (1,640) requesting help with financial aid were nearly equal.



HIGH SCHOOL COMPLETION OF THE 1988-89 COHORT OF ASSET TEST TAKERS

The analysis below is based upon the 6,209 responses to the high school completion items by the MATC program applicants who took the ASSET tests during 1988-89.

1988-89 COHORT OF ASSET TEST TAKERS HIGH SCHOOL COMPLETION DESCRIPTIVE ANALYSIS ASSET TESTING

Ethnicity	High School Diploma	<u>ced</u>	Proficiency <u>Exam</u>	High School Completion	<u>Total</u>
Black	1,408 63.8%	520 23.6%	0.0%	10 0.5%	2,207 35.5%
American Indian	32 47.8%	23 34.3%	0 0.0%	0 0.0%	67 1.1%
White	2,277 65.6%	494 14.2%	0.03%	3 0.1%	3,469 55.9%
Hispanic	158 51.5%	96 31.3%	0.0%	0.3%	307 4.9%
Asian	91 57.2%	11 6.9%	0 0.0%	4 2.5%	159 2.6%
Total	3,966 63.9%	1,144 18.4%	0.0%	18 0.3%	6,209

Over 18% of these program applicants had GEDs. American Indian (34.3%), Hispanic (31.3%), and Black (23.6%) students had the highest percentage of program applicants with GEDs. The actual number of White students (494) and Black students (520) with GEDs were fairly close.



ENGLISH FIRST LANGUAGE OF THE 1988-89 COHORT OF ASSET TEST TAKERS

The analysis below is based upon the 6,174 responses to the language spoken at home item by the MATC program applicants who took the ASSET tests during 1988-89.

ENGLISH FIRST LANGUAGE DESCRIPTIVE ANALYSIS ASSET TESTING

Ethnicity	Yes	<u>No</u>	Total
Black	2,150	39	2,189
	98.2%	1.8%	35.5%
American Indian	66	1	67
	98.5 %	1.5%	1.1%
White	3,412	48	3,460
	98.6%	1.4%	56.0%
Hispanic	159	149	308
	51.6%	48.4%	5.0%
Asian	30	120	150
	20.0%	80.0%	2.4%
Tota ¹	5,817	357	6,174
	94.2%	5.8%	100.0%

While English was the first language for nearly all of the Black, American Indian, and White students, it was clearly the second language for 80% of the Asian students and nearly half of the Hispanic students.



B. COMPARISON OF CHARACTERISTICS OF WITHDRAWING, NONRETURNING, TRANSFERRING, AND GRADUATING LEAVERS

The number of students returning questionnaires in each category of the Cohort 89 leavers is as follows:

Withdrawees	81
Nonreturnees	38
Transfers	60
Graduates	90
Total Leaver Respondents	269

Survey instruments and data gathering procedures have been further revised and improved and will be fully implemented in 1989-90 so that leaver respondent return rates will be higher.

The number of students enrolled in the fall of 1988 and included in this study as cohort 89 was 2,513. Of these, 880 or 35% were leavers by either withdrawing during 1988/89 (226), not returning the second semester 1988/89 or the first semester 1989/90 (352), transferring during 1988/89 (126), or graduating in 1988/89 (176). A total of 1,633 students (65%) were still enrolled starting first semester 1989/90 and thus were considered persisters.

The following three tables show the breakdown of students in Cohort 89, as of August 31, 1989, by progress status, gender, and ethnicity, respectively.

Cobort	RQ	_	FREQUENCY	AMATVETE
OOHULL	0.7	_	PRECUIENCE.	ANALIBLE

<u>STATUS</u>	Freq	<u> %</u>	Cum Freq	Cum %
CONTINUING	1628	64.8	1628	64.8
GRADUATE	176	7.0	1804	71.8
NONRETURNEE	356	14.2	2160	86.0
SUSPENDED	1	0.0	2161	86.0
TRANSFER	127	5.1	2288	91.0
WITHDRAWEE	225	9.0	2513	100.0

GENDER	Freq	<u> </u>	<u>Cum Freq</u>	Cum %
FEMALE	1384	55.1	1384	55.1
MALE	1128	44.9	2512	100.0



Cohort 89 - FREQUENCY ANALYSIS (continued)

	Freq	<u> </u>	Cum Freq	Cum X
ASIAN '	47	1.3	47	1.9
BLACK	560	22.4	607	24.3
HISPANIC	96	3.8	703	28.1
AMERINDIAN	24	1.0	727	29.1
WHITE	1772	70.9	2499	100.0

COHORT 89 - INSTITUTIONAL ASSESSMENT BY LEAVERS

The following tables show the responses of leavers to questions regarding institutional assessment. Only significant differences in responses of the four types of leavers are noted.

Leaver Type		:	ETHNICITY									
1			ASIAN	!	BLACK !	' HISPANIC		 	MERINDIAN	MHITE		
;	!	N	PCT	- + ! ,	PCT	p:	CT	+-	РСТ	PCT		
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	!	901 601 3 8	8. 5 .	0	14.4! 15.0 42.1! 23.5		3 5	. 3	3.3 1.7	76. 52.		

Blacks make up a much higher percentage (42.1%) of nonreturning respondents than represented in Cohort 89 (22.4%).

'Leaver Type		ADMISSION REQUIREMENTS						
; ;		VERY SATISFIED		DISSATISF-!	DID NO T KNOW			
1	N'	PCT	PCT	PCT '	pCf			
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	86 46 33 71	31.4 32.6 30.3 70.4	6 3.0 60.6	2.2 1 3.0 1	3.5 2.2 6.1 4.4			

Withdrawees were very satisfied (70.4%) with admission requirements. Other leavers were mostly satisfied.



Leaver Type		TESTING PROCEDURES						
!	1		VERY SATISFIED	SATISFIED		DISSATISF-	DID NOT KNOW	
	!	Ŋ	PCT	l oct		the and the transfer and the same transfer age to	POT	
GRADUA E TRANSFER NONRETURNEE WITHDRAWEE	- + -	87 46 32 68	15.2 25.0	73.9 59.4	9 <u>:</u> 4 !	10.3! 6.5' 12.5' 8.8'	5.7 4.3 3.1 10.3	

Withdrawees were very satisfied (57.4%) with testing procedures. Other leavers were mostly satisfied.

*				
Leaver Type	: 	REGIS	STRATION PRO	DCESS
- -	i ! ! !	VERY SATISFIED	 SATISFIED	DISSATISF-
i	N	PCT	PCT	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	35 45 33 69	21.2	60.0 66.7	24.4 12.1

Withdrawees were the most satisfied with the registration process. Transfer students were the most dissatisfied.

Leaver Type	!	!	FEE PAYMEN	T & BILLING	
; ;	! !	VERY SATISFIED	SATISFIED	DISSATISF-	DID NOT KNOW
	N	PCT	PCT	, 5CL	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	85 46 33 65	13.0	73.9	- · ·	1.2 ¹ 4.3 ¹ 12.1 ¹ 21.5

'Leaven Type	! : :		CLASROOM FACILITIES				
	•	15	VERY ATISFIED	! SATISFIED	10:	564716F- :ED	DIG NOT KNOW
	!	N 1	PCT	POT		DOT	PCT
'GRADUATE 'TRANSFER INONRETURNEE 'WITHDRAWEE	1	67 45 34 64	27.6 15.2 17.6 35.9	78.3	3 ; 4	0.0 5.5 9.4	· · 2.9

Leaver Type	! :		LABORATORY/SHOP FACILITIES					
	!	1 : :	VERY SATISFIED	 SATISFIED	DISSATIS=- IED	DID NOT KNOW		
	! 	N	PCT	CT	POT	PCT		
GRACUATE TRANSFER NONRETURNEE WITHDRAWEE	:	86 ! 46 ! 32 ! 61 !	24.4 13.0 15.6 24.6	47.8	15.2	14.0: 23.9' 53.1' 29.5		

Leaver Type	:		ATHLETIC FACILITIES				
	!	VERY	SATISFIED	'DISSATISF-!	DID N T KNOV		
the day tags and his man buy now the gap paid which is	. N	PC-	PCT	PCT	PCT		
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	4	5 11.8 3 7.0 1 3.2 3 22.2	30.2	7.21	43.5° 55,8° 77.4° 57.1°		

A majority of leavers, except graduates, (43.5%) did not know about MATC athletic facilities.



Leaver Type		PERSONAL STUDY AREAS				
		VERY SATISFIED	SATISFIED	DISSATISF- IED	DID NOT KNOW	
	N	PCT	PCT	PCT	PCT	
!GRADUATE !TRANSFER !NONRETURNEE WITHDRAWEE	86 45 32 62	15.6 25.0	55.6 46.9	8.9 6.2	20.0 21.9	

Graduates were the most dissatisfied (23.3%) with personal study areas.

'Leaver Type	 		RACIAL HARMO	DNY CLIMATE	**
!		VERY SATISFIED	 EATISFIED	DISSATISF- IED	DIC NOT
•	N	PCT	PCT	PCT	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	87 45 31 63	20.0	53.3 51.6	8.9 9.7	6.9 17.8 25.8 22.2

A large majority of all leavers were satisfied with the racial harmony climate at MATC. Less than 10% were dissatisfied. Only graduates had more than 10% (16.1%) indicating dissatisfaction.

*	t	!	OVERAL MA	TC CLIMATE	**************************************
		VERY SATISFIED	SATISFIED	DISSATISF-!	DID NOT KNOW
1	N	PCT	PCT	PCT	PCT
GRADUATE ITRANSFER 'NONRETURNEE !WITHDRAWEE	! 85 ! 45 ! 33	15.6	66.7 51.5	15.6	1.2 2.2 3.0 4.8

Withdrawees were the most satisfied with the overall MATC climate. A large majority of leavers, over 85%, were satisfied.



'Leaver Type			FACUL	TY'S	ATTITU	DES	S TOWARD ST	UDENTS !
i	!		VERY SATISFIED	SA	TISFIED		DISSATISF-!	TON DID
	' !	N !	PCT	1	PCT	1	PCT	PCT '
GRADUATE TRANSFER INONRETURNEE WITHDRAWEE		86 ; 45 ; 32 ; 51]	31. 18.	1 8	50.6 57.6 46.9	8 [;] 9 <u>;</u>	11.6; 11.1; 25.0; 18.0;	9.4

Nonreturnees were the most dissatisfied (25%) with faculty's attitudes towards students. A large majority (about 80%) of leavers were sacisfied.

Leaver Type	!	STAFF'S	S ATTTITUDES	TOWARD STU	DENTS
		VERY SATISFIED	SATISFIED	DISSATISF-	DID NCT KNOW
	 N	PCT	PCT	PCT !	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	85 45 32 63	11.1	53.3 46.9	24.4	10.6 11.1 28.1 17.5

Transfer students were the most dissatisfied (24.4%) with the MATC staff's attitudes toward students. A large majority (about 68%) of leavers were satisfied. Many, including 28.1% of nonreturnees, did not know.

Leaver Type		INVO	DEVEMENT IN	POLICY MAKI	NG
		VERY SATISFIED	SATISFIED	DIŞSATISF- IED	DID NOT KNOW
•	i N	PCT	PCT	PCT	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	85 45 31 61	6.7	31.1		32.9 48.9 61.3 44.3



Leaver Type		PARTIC	CIPATION IN	CULTURAL AF	FAIRS
		VERY SATISFIED	SATISFIED	DISSATISF-	DID NOT KNOW
	N	PCT	PCT	PCT	PCT
GRADUATE !TRANSFER !NONRETURNEE !WITHDRAWEE	86 45 31 62	6.7 3.2	40.0	! 4.4! ! 9.7!	47.7 48.9 67.7 56.5

* !Leaver Type			PARTICIPATIO	ON IN SPORTS	
1 6. 1		VERY SATISFIED	 SATISFIED	DISSATISF-!	DID NOT '
	, , N	PCT	PCT	PCT	PCT
IGRADUATE !TRANSFER !NONRETURNEE !WITHDRAWEE	85 46 32 63	2.2	34.8	4.3	51.8 58.7 71.9 63.5

Leaver Type			INST	RUCTOR'S GRA	ADING PRACTIC	CES
	1 1 :		VERY SATISFIED		DISSATISF-	DID NOT KNOW
	! !	N	! PCT	PCT	PCT '	PCT.
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE		86 47 33 54	17.0 18.2	72.3	10.6	6.11 17.2



Leaver Type	;		INSTRUCT	ror's out-or	F-CLASS AVAIL	ABILITY
	1	; }	VERY SATISFIED	, SATISFIED	DISSATISF-1	DID NOT KNOW
	; ;	ν	PCT	PCT	! P C T	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE		86 1 45 1 32 61 1		7	3! 13.2° 2 12.5!	10.5 8.7 18.8 34.4

A large majority of leavers were satisfied with instructor availability. More than one-third (34.4%) of withdrawees did not know.

Leaver Type	!	! Co	DUNSELOR'S	AVAILABILITY	· · · · · · · · · · · · · · · · · · ·
1	!	VERY SATISFIED	SATISFIED	DISSATISF-	DID NOT KNOW
	N	PCT	PCT	PCT !	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	86 46 31 62	19.6	43.5 38.7	19.6 22.6	29.0

Graduates were the most satisfied with counselor availability. A high percentage (45.2%) of withdrawees did not know.

'Leaver Type	!	OVERALL OF	UALITY OF I	NSTRUCTION
		VERY SATISFIED	SATISFIED	'DISSATISF-
!	N	PCT	PCT	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	85 46 33 63	23.9 21.2	73.9	i 2.21

About 95% of leavers were satisfied with the quality of instruction. Nonreturnees had 15.2% dissatisfied as compared to 3.2% of withdrawees.



Leaver Type	1	. M.	AJOR: CURRIC	CULUM CONTEN	-
		VERY SATISFIED	 SATISFIED	DISSATISE- ED	DID NIT
•	! N	PCT	PCT	PCT	PC 7
'GRADUATE 'TRANSFER 'NONRETURNEE WITHDRAWSE	! 85 ! 45 ! 31 ! 63	17.8 16.1	52.2 61.3	15.6 ¹ 16.1 ²	1 . 2 ' 4 . 4 8 . 5 7 . 9

Leaver Type	!		MAJOR: COUR	RSE VARIETY	
		VERY SATISFIED SATISFIED		DISSATISF- IED	DID N OT KNOW
	N	PCT	PCT	PCT !	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	86 45 3 2 61	15.6 12.5	64.4 59.1	13.31 25.01	6.7 3.1 13.1

Leaver Type	1	· :	MAJOR: CL	LASS SIZE	
		VERY SATISFIED IS	SATISFIED	DISSATISE-	DID NOT KNOW
1	N	PCT '	PCT	PCT	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	87 45 32 60	20.0	62.1 64.4 78.1 50.0	6.7	8 . 9 ! 3 . 1 ! 3 . 3 !



Leaver Type	1		COU	RSE SELECTI	ON FLEXIBIL!	TY
	:		VERY SATISFIED		DISSATISF-!	DID NOT '
		N	PCT	PCT	PCT !	PCT ,
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE		86 44 32 62	1 1 . 4 1 1 5 . 6	63.5	20.5	4.5 12.5 12.9

Leaver Type	!		TRAIN	ING RELEVANO	CE TO EMPLOY	MENT !
			VERY SATISFIED	SATISFIED	DISSATISF-!	DID NOT '
		N	PCT	PCT	PCT !	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	!	87 44 32 61	13.6 15.6	38.6 50.0	18.2 9.4	8.0 29.5 25.0 39.3

Graduates were the most satisfied with training relevance to employment. Only 9.2% of graduates were dissatisfied. About one-third of other leavers did not know.

Leaver Type	!	CAT	ALOG/PUBLIC/	ATIONS ACCUR	ACY
. !	;	VERY	SATISFIED	DISSATISE	DID NOT KNOW
1	i N	PCT	PCT	PCT	PCT.
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	! 4	24.7 6 26.1 22 18.8 62 43.5	45.7	10.9	7.1 17.4 18.8



Leaver Type	;	1		ACADEMIC	CALENDAR		
:	I	: S	VERY CELECTION STATES OF THE DESIGNATION OF THE DES		DISSETISF= '	DID NOT KNOW	
	•	Ŋ	POT	PCT	PCT '	PCT	
GRADUATE ITRANSFER 'NONRETURNEE WITHDRAWEE	:	86 ' 46 ' 31 ! 61 !	18.6 19.6 12.9 14.8	69.6	2.2	9.3 8.7 25.8 24.6	

Withdrawees were the most dissatisfied (13.1%) with the academic calendar. Only about 3% of other leavers were dissatisfied.

Leaver Type	!			STUDENT'S CO	ONDUCT CODE	
1 1 :		! !	VERY SATISFIED	SATISFIED	DISSATISF-	DID NOT KNOW
	ļ N	; 	PCT	РСТ	PCT !	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE		86 46 32 61	14.0 15.2 12.5 9.8	56.5 56.2	4.3 6.2	17.4 23.9 25.0 27.9

Leaven Type	!	~	ACADEMIC	PROBATION/	SUSPENSION P	oricies .
!	! !		VERY SATISFIED	 SATISFIED	DISSATISE-	DID NOT
:		.\	PCT	PCT	PCT	PCT
GRADUATE !TRANSFER !NONRETURNEE !WITHDRAWEE	!	86 46 33 61	13.0	54.3 27. 3		43,0 28.3 45.5 57.4

Nonreturnees were the most dissatisfied (18.2%) with academic probation/suspension policies.



Leaver Type	1 !	•	; FI	NANCIAL AID	AVAILABILI	Υ
	•		VERY SATISFIED	'SATISFIED	DISSATISE-!	DID NOT KNOW
	 +-	N	PCT	PCT	PCT I	PGT
!GRADUATE !TRANSFER !NONRETURNEE !WITHDRAWEE	;	84 45 31 62	6.5	1 48.9 1 25.8	17.8	27.4 26 .7! 38. 7 . 2 5 .8

Nonreturnees were the most dissatisfied (29.0%) with financial aid availability.

Leaver Type	: :	! :	ADMIS	SSION	
	! !	USED,	' USED, UNSATISFI- ! ED	KNEW, NOT	DID NOT KNOW
	! N	PCT	PCT	PCT	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	, 85 43; 32 68	76.7 84.4	18.6	2.31	2 . 3 3.1 2.9

Leaver Type		: !	REGIST	RATION	
1 1 1	· .	USED,	USED, UNSATISFI- ED	KNEW, NOT	DID NOT
1	; N	PCT	PCT	POT	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	85 43 32 56	74.4	16.3 18.8	7.0 3.1	3.1!



Leaver Type			TESTING				
	:	! N !	USED, SATISFIED	! USED, !UNSATISFI- ! ED ! PCT	USED	KNOW '	
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	!	85 ! 40 ! 32 ! 63 !	64.7 55.0 59.4	7.1 1 12.5 9.4	15.0 21.9	17.5 9.4	

Leaver Type		: 	CAREER	PLANING	
 		USED, SATISFIED	USED, UNSATISFI- ED	KNEW, NOT USED	DID NOT KNOW
	l N	PCT	PCT	PCT	PCT .
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	84 42 32 61	33.3 21.9	9.5 9.4	35.7 46.9	19.0 21.4 21.9 16.0

Leaver Type	!		COLLEGE OF	RIENTATION	
	:	JSED, SATISFIED	USED, UNSATISFI- ED	KNEW, NOT I	DID NOT KNOW
	i N	PCT	! PCT	PC7	PCT !
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	! 8: ! 4! ; 3:	30.0 2 34.4	7.5	37.5]	25.0 25.0



Leaver Type	;			GUIDANCE/	COUNSELING	TO SEE ANY MEET AND SEED THE VIEW OF	
	:	;	USED.	USED, UNSATISFI- ED	KNEW, NOT	i DID NO	
	!	N	POT	POT	FCT	PCT	
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE		84 40 31 82	47.5	10.01	30.0 48.4) !	7.1

A majority (58.1%) of nonreturnees either did know but did not use (48.4%) or did not know (9.7%) about guidance/counseling services.

Leaver Type	ļ	 	ACADEMIC	ADVISING	
!		USED, USED, UNSATISFI- SATISFIED ED		KNEW, NOT	DID NOT KNOW
	N	PCT	PCT	POT	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	84 43 31 59	41.9	9.3	32.6	11.9 16.31 32.3 16.9

A large majority (71%) of nonreturnees knew but did not use (38.7%) or did not know (32.3%) about academic advising.

Leaver Type		•	TUTO	RING	,
•	:	USED,	USED. UNSATISFI- ED	KNEW, NOT USED	DID NOT :
	N	PCT	! PCT	PCT !	P C. T
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	83 42 33 60	23.8	9.5	47.6	(9.0) 24.2

A large majority (more than 85%) of nonreturnees or withdrawees knew but did not use or did not know about tutoring.



lieaver Type	1	!	ATHLE	ETICS	
	: ! !	USED,	USED, UNSATISFI- ED	KNEW, NOT	DID NOT :
	N	PCT	PCT	PCT	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	! 63 ! 4: ! 33 ! 58	9.8	7.3	56.1 63.6	26.8

Leaver Type		!	CULTURAL	PROGRAMS	
: ! ! !	' 	USED,	USED, UNSATISFI- ED	KNEW, NOT	DID NOT KNOW
!	ļ N	PCT	PCT	PCT	PCT
 GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	83 42 32 58	9.5	7.1 3.1	47.6! 53.1	35,7

Leaver Type	; ; ;	·		FINANCI	IAL AID	
:	:		SATISFIED	ED.	KNEW, NOT !	KNOW
· •	l	N !	PCT	PCT !	PCT	PCT
GRADUATE	!	85	50.6	11.8	34.1	3.5
TRANSFER	;	421	35.7	11.9	42.9	9.5
NONRETURNEE	!	34	32.4	26.5	32.4	8.8
WITHDRAWEE	ļ	50	46.7	6.71	36.7	10.0

Nonreturnees who used financial aid were the most dissatisfied (26.5%).



Leaver Type . !			FAMILY & WOMEN'S RESOURCE CENTER				
	:		USED, SATISFIED		KNEW, NOT !		
!	1	N 1	POT	PCT	PC"	PCT	
GRADUATE TRANSFER INONRETURNEE WITHDRAWEE	1	82 ! 42 ! 33 ! 60 !	13.4 14.3	2.4			

Leaver Type	!	<u> </u>	BUSINESS	5 OFFICE	
! !		USED,	USED, UNSATISFI- ED	KNEW, NOT USED	DID NOT
	N	PCT	PCT	PCT !	PCT
I GRADUATE TRANSFER NONRETURNEE WITTHDRAWEE	83 40 32 60	20.0 15.6	7.5	40.0 37.5	3 2.5 40.6

*					
Leaver Type	1	PHYS	BICAL/LEARN	ING IMPAIRME	ENT
		USED, SATISFIED	USED, UNSAT1SFI- EC	KNEW, NOT	DID NOT KNOW
	l N	PCT	РСТ	PCT	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	! 83 ! 41 ! 32 ! 59	7.3	2.4	58.5 50.0	31.7 43.7



Leaver Type	1	STU	DENT SENATE,	ORGANIZATIO	DNS !
	1	UUED, SATISFIED	USED, UNSATISFI- ED	KNEW, NOT	DID VOT WOWN
	N	PCT	PCT	PCT	PC-
GRADUATE TRANSFER NONRETURNES WITHDRAWEE	83 40 33 60	15.0 3.C	5.0	57.5 54.5	22.51

Leaver Type	1	 - 	VETERAN :	SERVICES	
		USED, SATISFI-IS		D, SATISFI-KNEW, NOT DID	DID NOT KNOW
1	N PCT	PCT	PCT	PCT	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	83 41 33 62	9.8	1.2 7.3	53. 7 42.4	29.3

Leaver Type	•	1	CHILD CARE				
	;	USED, USED, USED, USED, USED, USED, USED ED		KNEW, NOT	DID NOT		
	! N	PCT	PCT	PCT	PCT		
GCADUATE TRANSFER NONRETURNEE WITHDRAWEE	84 42 33 61	2.4	7.1	64.3 54.5	26.2		

Most leavers knew of, but did not use, child care. More were unsatisfied than satisfied.

!Leaver Type		STUDENT CENTER				
	! !	USED,	USED, UNSATISFI- ED	KNEW, NOT	DID NOT KNOW	
	N	PCT	PCT	P	PCT	
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	83 40 33 60	57.5	12.5	20.01	10.0 27.3	

Leaver Type	!		BOOKS	STORE	*
		USED,	USED, UNSATISFI- ED	KNEW, NOT USED	DID NOT KNOW
	N	PCT	PCT	PCT	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	86 41 33 64		14.6 18.2	2.4 9.1	

Leaver Type	ì		i : :	1.181	RARY	
	!		USED,			DID NOT KNOW
		N	PCT	PCT	РСТ [PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE		85 42 33 64	69.0	14.3	11.9 18.2	4.8 12.1 6.2



Leaver Type	1		CAMPUS EN	MPLOYMENT	!
	: !	USED,	USED, UNSATISFI- ! ED	KNEW, NOT USED	DID NOT KNOW
1	N	PCT	PCT	PCT	PCT '
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	84 42 33	21.4	9.5 3.0	31.0 45.5	38.1

Leaver Type	ļ		HEALTH S	SERVICES	
 	 	USED, USED, USED, USED, USED, UNSATISFIED ED		KNEW, NOT USED	DID NOT KNOW
; 	N	PCT	PCT	PCT !	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	84 42 33 61	14.3	9.5 3.0	35.7 30.3	40.5 6 3.6

Leaver Type	!	CAFETERIA				
; 		USED,	USED, UNSATISFI- ED	KNEW, NOT	DID NOT KNOW	
!	N	PCT	РСТ	PCT	PCT	
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	! 86 41 33 61	58.5 54.5	12.2	22.0 21.2	. 7.3 9.1 3.2	



Leaver Type			INTERNATION	AL STUDENTS	
	!	USED, SATISFIED	USED, UNSATISFI- ED	 KNEW, NOT USED	DID NOT !
<u> </u>	N	PCT	PCT	PCT	PCT
GRADUATE TRANSFER NONRETURNEE WITHORAWEE	82 42 33 60	4.8 3.0	4.8		47.6

Leaver Type			JOB PLA	ACEMENT	· ••• ••• ••• ••• ••• ••• ••• ••• ••• •
		USED, SATISFIED	USED, UNSATISFI- ED	KNEW, NOT USED	DID NOT KNOW
	N	PCT	PCT	PCT	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	82 41 33 60	9.8 6.1	9.8	50.0 51.2 42.4 58.3	11.0 29.3 51.5 30.0

Only graduates used MATC job placement services to any great extent, 23.2% were satisfied and 15.9% were dissatisfied.

Leaver Type		!	CAMPUS SECURITY								
		USED, SATISFIED	USED, UNSATISFI- ED	KNEW, NOT	DID NOT						
	N N	PCT	PCT	PCT	PCT						
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	82 42 33 61	33.3 21.2	9.5 6.1		19.0 36.4						



Leaver Type		! !	ноиз	SING	
! !	!	USED, SATISFIED	USED, UNSATISFI- ED	KNEW, NOT	DID NOT KNOW
	N	PCT	PCT	PCT	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	82 41 32 59	3.1	7.3	63.4 48.8 37.5 54.2	32.9 39.01 59.4 44.1

Leaver Type	!		MULTICULTUR	RAL AFFAIRS	
		USED, SATISFIED	USED, UNSATISFI- ED	KNEW, NOT USED	DID NOT I
	N	PCT	PCT	PCT	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	83 42 33 61	•	3.0	42.9 30.3	

More than 90% of leavers either knew and did not use or did not know about multicultural affairs services.

Leaver Type	!!!		STUDENT N	NEWSPAPER	
 		USED, SATISFIED	USED, UNSATISFI- ED	KNEW, NOT USED	DID NOT KNOW
! 	N	PCT	PCT	PCT	PCT
GRADUATE TRANSFER NONRETURNEE WITHDRAWEE	84 41 32 60	48.8 25.0	12.2 3.1	33.3 26.8 43.7 45.0	1.2 12.2 28.1 5.0



C. REASONS FOR LEAVING

The question "What was the most important reason for leaving MATC?" was asked of a sample of withdrawing students and nonreturning students. The responses to this question are shown in the following table. Rank column shows relative order based on the frequency of respondents that selected given reason as the most important for leaving.

		Withdrav	ving	N	onreturi	ning
Reason for Leaving		Studer	nts		Student	t <u>s</u>
	n	<u> </u>	Rank	<u>n</u>	<u> </u>	Rank
Personal/Family Illness	14	17.3	1	7	18.4	2
Educational Plan Change	11	13.6	2	1	2.6	9
Grade Problems	11	13,6	2	0	0.0	14
Other Personal/Family	10	12,3	4	2	5,3	5
Found Training-Related Job	6	7.4	5	1	2.6	9
Job Conflict	5	6.2	6	6	15.8	3
Found Training-Unrelated Job	4	4.9	7	0	0.0	14
Moving	4	4.9	8	2	5.3	5
Financial Problems	3	3.7	9	9	23.7	ī
Transportation Problems	3	3.7	9	0	0.0	14
Other Reason	3	3.7	9	1	2.6	9
Needs Unrelated Courses	2	2.5	13	1	2.6	9
Lost Interest	2	2.5	14	1	2.6	9
Child Care Problem	0	0.0	15	3	7.9	4
Transfer Plans	0	0.0	16	2	5,3	5
Poor Quality Instruction	_0	0.0	<u>17</u>	_2	5.3	<u>5</u>
Total	81	100.0		38	100.0	

As shown in the table above, the four most important reasons for leaving by withdrawee respondents--1) Personal/Family Illness, 2) Educational Plan Change, 3) Grade Problems, 4) Other Personal/Family--were somewhat different from those four most important reasons for leaving by nonreturnee respondents--1) Financial Problems, 2) Personal/Family Illness, 3) Job Conflict, and 4) Child Care Problem.

These results will be verified using larger samples in the second year of the study at MATC and at other Wisconsin Technical Colleges.

The most important reason for transferring are shown in the following table along with their ranked order as preferred by transfers.

Reason for transfer	<u>n</u>	Percent	Rank
Advanced Degree	31	53,4%	1
Change Field	11	19.0%	2
Moving	5	8.6%	3
Poor Instruction	3	5.2%	4
Program Completion	3	5.2%	4
Professional Advancement	3	5.2%	À
Inconvenient Schedule	1	1.7%	7
Other	ï	1.7%	8



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The most important factors influencing upon transferring to other college is shown in the following table.

Factor in Rank Order	n	Percent
1. Career Goal Relevancy	19	33.9%
2. Program Quality	12	21.4%
3. Location	8	14.3%
4. Personal Interest	6	10.7%
5. Professional Advancement	4	7.1%
6. Personal Referrals	3	5.4%
7. Other	2	3.6%
8. Institution's Prestige	1	1.8%



, D. MATC AVERAGE CREDIT COMPLETION AND GRADE POINT AVERAGES OF COHORT 89 STUDENTS

The Cohort 89 group includes these individuals who took the ASSET test and who enrolled at MATC the first semester of 1988-89. The GPA of this group includes only those who received a grade in at least one course.

On the following tables, CMP% means credit completion percentage and represents the percentage of attempted credits completed during the 1989-90 school year. The mean CMP% and GPA are shown for each ethnic group by high school certificate and ASSET scores. The mean CMP% and GPA for males and females are also shown by high school certificate and ASSET scores.

AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE BY HS CERTIFICATE (AS OF AUGUST 22, 1989)

CERTIFICATE TYPE						ethi	NIC BA	CKGROU	ND GRO	UPS								
		BLAC	K	i am	ERINDI	AN		WHITE		H	ISPANI	С		ASIAN			TOTALS	}
! 		CMP%	GPA		CMP%	GPA		i	GPA		·	GPA			GPA		i	GPA
	N		MEAN	•	MBAN	MEAN	N	1	MEAN	!	•	+ MEAN		•	+ HEAN	N	 MEAN	+ MEAN
HS-DIPLOMA GED	773	83.	4 1.65 6 1.48	17		2.04 1.49			2.57 2.22	•		2.34 2.00			2.59 2.00		-	2.27 1.90
PROFICIENCY COMPLT CERT	1 6	50. 70.	0 8 1.63	i . I .	i	i .i	1	100.0	3.56					١.	. 3.03	2	75.0	3.56 2.07
FOREIGN HS KONGRAD HS	69	78.	6 2.91 3 01	1 2	50.0	0.00	17	80.5	3.82 1.53	14	77.4	3.00	11	92.7	2.93 2.71	113	79.4	2.95
HS STUDENT AL!			9 1.29 3 1.58	:	-	1.89		•	2.38 2.49		:	1.52 2.14		•	2.92 2.60			2.28

Asians achieved a GPA of above 2.0 in every certificate type and the highest overall GPA of 2.60 and average credit completion 88.1%.

Blacks had the lowest GPA in every certificate type and in total 1.58.

Credit completion percentages were more than 70% in most cases.



AVERAGES OF CREDIT COMPLETION PCT AND GRADE PCINT AVERAGE OF STUDENTS ASSET-TESTED IN 1988/89 WITHIN ASSET READING SCORE GROUPS BY ETHNICITY (AS OF AUGUST 22, 1989)

Ethnic Background					ASS	et read	ING S	CORE					1		
	•		14			9			•				 	OTALS	•
	1	CHP%	GPA		CKP%	GPA		CMP\$	GPA		CHP%	GPA			GPA
	•	HEAR	MEAN	N	HEAR	KBAN	R	+ 	MBAN	X	HEAN	MBAN	H		MEAN
BLACK AMERINDIAN WHITE HISPANIC	185 1 58 27	74. 100. 80. 79.	9 1.50 0 1.78 4 2.11 5 2.12	293 10 201 48	81.8 85.4 86.6 80.8	1.67 2.15 2.41 2.20	372 21 1414 63	80.3 85.1 85.2 78.7	1.56 1.52 2.52 2.13	27 1 6 7	76.9 100.0 75.0 82.1	1.34 2.29 1.56 2.43	877 33 1679 147	79.6 86.1 85.2 79.7	1.58 1.74 2.49 2.16
ASIAN ALL	•	•	7 2.87 6 1.80	•	•	2.52 2.01					•	2.41			•

Asians and Hispanics had GPAs above 2.0 regardless of reading score.

Blacks had GPAs below 2.0 regardless of reading score.

White students had increasing GPAs with increasing reading scores.

GPA by Ethnic Group for Total Sample in Rank Order

	<u>GPA</u>	(% GPA Diff)1	<u>n</u>
Asian	2.60	+19	64
White	2.49	+14	1679
Hispanic	2.16	- 1	147
Am Indian	1.74	-20	33
Black	1.58	-27.5	877
TOTAL GPA	2.18		

(* GPA Diff) = ----- X 100 (* TOTAL GPA)



1

AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-TESTED IN 1988/89 WITHIN ASSET LANGUAGE SCORE GROUPS BY ETHNICITY (AS OF AUGUST 22, 1989)

Bthnic Background			λS	SET L	ANGUAG	E SCORE	}					
 	39)WBR							•	TOTALS	
ļ		CHP	GPA		CHP	GPA		CHPS	GPA		CNP	
		•	HEAN	N	HEAN		N	NEAR	HEAN	N	HBAN	HEAN
BLACK		•	1.53	363	80.1	1.62	92		1.61			
AMERINDIAN			2 1.79					85.2	1.62	33	86.1	11.
TRITE	307	84.4	2.33	686	85.0	2.39	687	85.6	2.66	1680	85.2	2.4
HISPANIC	65	80.) 2.13	66	78.9	2.20			2.14			
SIAN	35	89.2	2.65	18	78.2	2.47	8	81.9	2.54	61	85.0	2.5
LL I			1.92						2.51			

Asians and Hispanics had GPAs above 2.0 regardless of language score.

Blacks had GPAs below 2.0 regardless of language score.

White students had increasing GPAs with increasing language scores.

Ethnic Background	 		,,,,,,,,	SSET I	NUMERI	C SCORE						
	11		WBR							•	TOTALS	
 		CHP	GPA		CHP	GPA !	{	CHPE	GPA		CHP%	•
i 	N	HEAR	HEAN	N	HEAN		N	MBAN		N	-	HEAN
BLACK	270	79.0	1.50	406	78.5	1.62	201	82.5	1.59	877	79.6	1.58
AMERINDIAN WHITE	143	82.5	1.53 2.01	543	83.3	1.82 2.35	991	86.5	2.63	1677	85.1	2.40
HISPANIC ASIAN			2.20 2.78									
ALL			1.75									

Asians and Whites all had GPAs above 2.0 regardless of numeric score. White students had increasing GPAs with increasing numeric scores.



AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-TESTED IN 1988/89 WITHIN ASSET READING SCORE GROUPS BY GENDER (AS OF AUGUST 22, 1989)

Gender											A	SSI	T	RBA	DI	NG	S	COR	E													
! !		11) T() !	4	•			1	5	TO	19)						HIG) (OR L	OW:	BR		,	TOTALS	3	
! !		•••	CHI	\	1	GP/	۱-۱ 							PA	į	•••		CH	Pŧ	١	GP	+ A					GPA			CMP%		
<u> </u>	 1		ME/		•			•	N	M	Bai	1	MB	an	İ	N		ME	AN	M	IEλ	 N	N		MEA	N	+ MEAN :	1	N	 MEAN	18	EAN
 female	1	87	70	. 4		1.6	32		373		83	3	2	. 05		10	44	B	3.4	П	2.	39	;	36	75	. 6	1.56	1	640	82.4	H	2.23
ALL	•		80 71		•				211 584	•					•			•		1	_						1.83 1.71					

AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-TESTED IN 1988/89 WITHIN ASSET LANGUAGE SCORE GROUPS BY GENDER (AS OF AUGUST 22, 1989)

Gender	ļ					_		A	SSI	37	LA	NG	UA	\GE	8	CO	RB									ı						
				-													•				R H								TA:	LS		
	-	••••	10	:Ni	1	١	G	A	ļ		١	CH	IP t		(PA	į			(CNP	ł		GP	A			Į C	NP!		G	
			į	(B)	W	ĺ	MB		İ	N	j		AN	1	ME	AN	i	1	i	į		ł	K	BAI	N	N	l	H	BAI	N		AN
PEKALE	-+- 	441																														
MALS	Ĺ																									12						
ALL	İ	856	ij	8	١.١	6	1	.93	Ĺ	11	32	8	12.	9	2	.1	2	8	28	1	84	.7		2.	52	28	166		83	. 0	2	. 1

AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-TESTED IN 1988/89 WITHIN ASSET NUMERIC SCORE GROUPS BY GENDER (AS OF AUGUST 22, 1989)

Gender	1									AS	SE	T	N	UM	E R	10	: 5	CC	RE				_													
		1	1	01						•				7(-			_	OT				
	-					•	۱	GP	A	į			1		Pł	,	(PA	j			1	C	IP %	,	0	P	۱			þ	CMI	?	1		
	1	N	j	M	A	1	M	EA		İ	N		İ	MB	A N		MI	AN		1	N	İ	K			ME	Al	ı İ	1	N	į		AN	1	EA	N
PEMALE	-+-																												1							
MALE		14	4	8	3	8	ĺ	1.	60	Ĺ	4	03	1	8	1.	7	1	. 8	8	(68	2	8	5.	0	2	. 3	14	1	229)	8.	3.8		2.	10
ALL	Ì	47	7	1	30	. 8	ĺ	1.	75	Ĺ	10	83	3	В	1.	4	1	2.(6	1	30	8	{	35.	1	2	2.4	13	2	861	BI	8	3.1)	2.	11

As ASSET Reading, Language, and Numeric scores increase, GPAs increase for both males and females. Mean GPAs for females are generally higher than males.



AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE BY HS CERTIFICATE (AS OF AUGUST 22, 1989)

CERTIFICATE TYPE									
		PEMÁLE	!		MALE		1	IOTALS	
		ĭ	GPA			GPA		CMP%	
	א	HEAN	NEVN		neah		N	•	MEAN
HS-DIPLOMA			++ 2.30			2.23			
GED	343	78.7	2.07	244	80.5	1.65	587	79.4	1.90
PROFICIENCY	3	03.3	2.62	•	, ,	.	3	83.3	2.63
COMPLT CERT	5	65.0	2.44	8	78.9	1.85	13	73.6	2.07
POREIGN HS	5	65.7	2.95	13	97.6	3.06	18	88.8	3.0
HONGRAD HS	64	75.5	1.10	53	84.7	1.40	117	79.7	1.24
HS STUDENT	134	84.4	2.36	134	88.7	2.17	268	86.5	2.2
ALL	1938	83.4	2.23	1440	84.2	2.10	3378	83.7	2.18

Overall, females have slightly higher GPAs and average credit completion.



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CHAPTER IV

SUMMARY AND RECOMMENDATIONS

A. CHARACTERISTICS OF PRELEAVERS AND ENROLLEES

Comparison of 21 characteristics of preleavers and ASSET tested individuals who did enroll at MATC showed no major differences between preleavers and enrolled students. The largest difference between preleavers and enrollees was in the percentage of preleavers who were high school students (19.6%) at the time they took the ASSET as compared to the 7.9% of enrolled students who were high school students.

The following results were obtained from the total ASSET test takers group in 1988-89. Both preleavers and enrollees were included since no significant differences were found between preleavers and enrollees. Tables for these results are shown in Chapter III Results, Part A.

1. ASSET Numerical Test Scores

Students with ASSET numerical scores above 19 are prepared to enter Associate Degree programs. Fifty-five percent of the White students and 21% of the minority students had ASSET numerical scores above 19.

2. ASSET Reading Scores

The distribution of ASSET reading scores by ethnic group shows the following. A score of 20 in reading can be considered a minimum for doing college work and is therefore the minimum score for nearly all Associate Degree programs. Only 33.7% of the minorities tested in the fall of 1988-89 were in this group, while 80.2% of the White students fell in this category.

The second category (15-19) is considered for students to enter the Crossover program. Only 12.4% of the White students, while 27.3% of the minority students had reading scores in this category.

Students in the third category (10-14) of reading scores are usually recommended for Basic Skills Level II (a kind of Pre-Crossover) or certain less rigorous diploma programs. Twenty-seven percent of the minority students and approximately six percent of the White students were in this category.

The lowest category (0-9) represents students who would be in Basic Skills Level I or Literacy Training. Nearly 12% of the minority students and 1.5% of the White students fell into this category.

3. Ethnicity and Gender

Although the majority of this group was female, the distribution of gender varied by ethnic group. The Black group had the lowest percentage of males enrolled (36.8%) followed by White (47.4%), Hispanic (47.9%), and American Indian (50.7%). The Asian group had the highest percent of males (64.0%) enrolled.



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4. Age

The White students starting programs in the fall of 1988 were generally younger than the minority students. Approximately 37% of the White and American Indian students were under age twency. Only 24% of the Black and Hispanic students and 17% of the Asian students were under age twenty. The largest percentage of Asian (59.1%), Hispanic (51.8%) and Black (48.1%) students were in the 20 to 29 age group. White (43.7%) and American Indian (39.7%) were in the 20 to 29 age groups at rates slightly higher than in the under 20 age group.

5. Reason for Attending MATC

The majority of each ethnic group chose job preparation or job advancement as the reason for attending MATC.

6. Program Certainty

All ethnic groups were sure of their program choice. The Asian students were less sure of their program choice than all of the other groups.

7. Career Certainty

Students were slightly less sure of their career than their program. The Asian students, again, showed the least surety of all groups.

8. Amount of Education Planned

A larger percent of minority students intended to get graduate or professional degrees than White students. A higher percentage of Hispanic students intended to get four-year degrees than the other ethnic groups. In each ethnic group the majority of students intended to get less than a baccalaureate.

9. MATC Educational Plan

Eighty-six percent of these students intended to earn a two-year degree or a diploma. Black (86.9%), White (86.5%), and Hispanic (84.0%) students had similar degree and diploma total percentages although White students were more likely to select a two-year degree. Asian (18.1%) and American Indian (15.4%) students indicated the highest percentage of undecided responses, while Black students (8.4%) indicate the lowest percentage of undecided responses.

10. Financial Aid Help

Over 70% of the minority students indicated they need help with financial aid while less than half of the White students requested help. Black students at 77.1% represented the largest percentage requesting help with financial aid. The actual number of White students (1,616) and Black students (1,640) requesting help with financial aid were nearly equal.



11. High School Completion

Over 18% of program applicants had GEDs. American Indian (34.3%), Hispanic (31.3%), and Black (23.6%) students had the highest percentage of program applicants with GEDs. The actual number of White students (494) and Black students (520) with GEDs were fairly close.

12. English as First Language

While the first language for nearly all of the Black, American Indian, and White students, English was clearly the second language for 80% of the Asian students and nearly half of the Hispanic students.

B. COMPARISON OF CHARACTERISTICS OF WITHDRAWING, NONRETURNING, TRANSFERRING, AND GRADUATING LEAVERS

The number of students in Cohort 89 and involved in this study was 2,513. Of these, 880 or 35%, were either leavers by withdrawing 226 (9%), not returning the following semester 352 (14%), transferring to other institutions 126 (5%), or graduating 176 (7%). Sixty-five percent (65%) were still enrolled at the beginning of the Fall term 1989/90 and are considered persisters.

The following results were obtained from a sample of 269 leavers who responded to a questionnaire. Tables for these results are shown in Chapter III Results, Section B. Only items in which there were large differences in responses by leaver type are included.

1. Admission Requirements

Withdrawees were very satisfied (70.4%) with admission requirements. Other leavers were mostly satisfied.

2. Testing Procedures

Withdrawees were very satisfied (57.4%) with testing procedures. Other leavers were mostly satisfied.

3. Registration Process

Withdrawees were the most satisfied with the registration process. Transfer students were the most dissatisfied.

4. Athletic Facilities

A majority of leavers except graduates (43.5%) did not know about MATC athletic facilities.

5. Study Areas

Graduates were the most dissatisfied (23.3%) with personal study areas.



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6. Racial Harmony

A large majority of all leavers were satisfied with the racial harmony climate at MATC. Less than 10% were dissatisfied. Only graduates had more than 10% (16.1%) indicating dissatisfaction.

7. Overall MATC Climate

Withdrawees were the most satisfied with the overall MATC climate. A large majority of leavers, over 85%, were satisfied.

8. Faculty Attitudes Towards Students

Nonreturnees were the most dissatisfied (25%) with faculty's attitudes towards students. A large majority (about 80%) of leavers were satisfied.

9. Staff Attitudes Towards Students

Transfer students were the most dissatisfied (24.4%) with the MATC staff's attitudes toward students. A large majority (about 68%) of leavers were satisfied. Many, including 28.1% of nonreturnees, did not know.

10. Instructor Availability

A large majority of leavers were satisfied with instructor availability. More than one-third (34.4%) of withdrawees did not know.

11. Counselor Availability

Graduates were the most satisfied with counselor availability. A high percentage (45.2%) of withdrawees did not know.

12. Quality of Instruction

About 95% of leavers were satisfied with the quality of instruction. Nonreturnees had 15.2% dissatisfied as compared to 3.2% of withdrayees.

13. Training Relevance to Employment

Graduates were the most satisfied with training relevance to employment. Only 9.2% of graduates were dissatisfied. About one-third of other leavers did not know.

14. Academic Calendar

Withdrawees were the most dissatisfied (13.1%) with the academic calendar. Only about 3% of other leavers were dissatisfied.



15. Academic Probation/Suspension Policies

Nonreturnees were the most dissatisfied (18.2%) with academic probation/ suspension policies.

16. Financial Aid Availability

Nonreturnees were the most dissatisfied (29.0%) with financial aid availability.

17. Guidance/Counseling

A majority (58.1%) of nonreturnees either did not know but did not use (48.4%) or did not know (9.7%) about guidance/counseling services.

18. Academic Advising

A large majority (71%) of nonreturnees knew but did not use (38.7%) or did not know (32.3%) about academic advising.

19. Tutoring

A large majority (more than 85%) of nonreturnees or withdrawees knew but did not use or did not know about tutoring.

20. Financial Aid

Nonreturnees who used financial aid were the most dissatisfied (26.5%).

21. Job Placement

Only graduates used MATC job placement services to any great extent, 23.2% were satisfied and 15.9% were dissatisfied.

22. Multicultural Affairs

More than 90% of leavers either knew and did not use or did not know about multicultural affairs services.

C. REASONS FOR LEAVING

The major reasons for leaving by withdrawing students were:

1.	Personal Family Illness	17.6%
2.	Educational Plan Change	13.6%
3.	Grade Problems	13.6%
4.	Other Personal/Family	12.3%
5.	Found Training Related Work	7.4%



The major reasons for leaving by nonreturning students were:

1.	Financial Problems	23.7%
2.	Personal/Family Illness	18.4%
3.	Job Conflict	15.8%
4.	Child Care Problem	7.9%

The most important reasons for transferring were:

1.	Advanced Degree	53 '4%
2.	Change Career Field	19.0%

The most important factors in transferring were:

1.	Career Goal Relevance	33.9%
2.	Program Quality	21.4%
3.	Location	14.3%

D. MATC AVERAGE CREDIT COMPLETION AND GRADE POINT AVERAGES OF 1988/89 ASSET TESTED ENROLLEES

Tables showing the results below can be found in Chapter III Results, Part D.

- 1. Foreign high school graduates had the highest mean GPAs, 2.99 (N=17).
- 2. High school graduates had a higher mean GPA, 2.27 (N=2,324) than GED completers, 1.90 (N=152).
- 3. Asians achieved a mean GPA of above 2.0 in every high school certificate type and the highest overall mean GPA of any group, 2.60, and average credit completion 88.1% of credits attempted.
- 4. Blacks had the lowest mean GPA in every 1 gh school certificate type and in total, 1.58.
- 5. ASSET test scores by ethnic group and gender in Reading, Language, and Numeric skills indicated the following:
 - a. Contrary to the common assumption that ASSET scores should have predictive validity. ASSET Reading, Language, or Numeric scores are not predictive for any minority group or whites. ASSET tests are used as a diagnostic tool to admit students to programs and not necessarily to assess later performance.
 - b. White students had increasing GPAs with increasing reading, language, or numeric ASSET scores.
 - c. Asians and Hispanics had mean GPAs above 2.0 regardless of reading or language ASSET scores.
 - d. Asians and Whites had mean GPAs above 2.0 regardless of ASSET numeric score.



e. Blacks had mean GPAs below 2.0 regardless of reading, language, and numeric ASSET scores.

GPA by Ethnic Group for Total
Sample in Rank Order

	<u>GPA</u>	(% GPA Diff)2	<u>n</u>
Asian	2.60	+19%	64
White	2.49	+14%	1679
Hispanic	2.16	-1%	147
AmIndian	1.74	-20%	33
Black	1.58	-27.5%	877
TOTAL GPA	2.18		

Overall, females had higher mean GPAs, 2.23, than males, 2.10, and slightly higher credit completion rate, 84.2% to 83.4%.

2 (TOTAL GPA - GPA) (% GPA Diff) = ----- X 100 (TOTAL GPA)



ASSET SCORES AND GPA BY HIGH SCHOOL ATTENDED

Tables 1, 2, and 3 show ASSET numeric scores, reading scores, language scores, and mean grade point averages, respectively, by high school attended. Some highlights shown on these tables are as follows:

- 1. GPA increases with ASSET numeric, reading, and language scores. Students in the lowest grouping have mean GPAs below 2.0 for all three ASSET tests. Students with ASSET scores above the following scores had mean GPAs above 2.0: Numeric 12 or above, Reading 15 or above, Language 40 or above.
- 2. Sixty-five (84%) of 77 high schools showed total mean GPA above 2.0. Highest mean GPA for high schools with more than 10 students was 2.78 for 17 students from Brown Deer.
- 3. Twelve high schools had mean GPAs less than 2.0. Seven (7) of 16 (44%) Milwaukee high schools had mean GPAs less than 2.0. Riverside had the lowest mean GPA of 1.43 for 54 students.
- 4. Ninety-four (94) students from Milwaukee Adult High School (MATC) have a mean GPA of 1.94.



AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-TESTED IN 1988/89 WITHIN ASSET NUMERIC SCORE GROUPS BY HIGH SCHOOL (AS OF AUGUST 22, 1989.

High School Name		*****		ASSET	NUMERI	C SCOR				 	*****	
	11	OR LO	WER	1	2 70 1	8	19	OR HIG	HER	 	TOTALS	
į		CMP%	GPA		CNP%	GPA		CMP	GPA	,	CMP%	GPA
	N	KBAN			MBAN	MBAN	N	HBAN	MBAN		HBAN	HEAN
BAYVIZW			1.96			2.13		•	2.55			2.34
CUSTER		•	1.71	•	-	2.04	•		1 2.07			2.01
HANILTON	-	1	1.81			1.86			2.42			1 2.12
JUNBAU		-	1.66		•	1.40		•	1.50			1.70
KING MADISON		•	1.77			1.85			2.03			1.93
MARSHALL		_	1.57 1.57		•	1.83 1.79		•	2.65	'		2.16
MILW TECH	•		1.32			1.7 3 2.04			1.73 2.39			1.72
NORTH DIVISION			1.83			1.38		•	2.20			2.25 1.75
PULASKI			1.65			2.31			2.27			2.21
RIVERSIDE			0.85			1.32			1.85			1.43
SOUTH BIVISION			2.01			2.17			2.39	•		2.26
VINCENT	-	-	1.25			1.40			1.74			1.46
WASHINGTON	24	95.2	1.65	•	•	1.62			1.56			1.61
WEST DIV/ARTS	14	72.6	2.15			2.05			2.14			2.10
OTHER MILW PUBLIC	6	89.2	1.91			3.37		87.5	2.22			2.26
HATC ADULT HS		-	1.63		79.3	2.13	33	80.9	1.92	941	78.8	1.94
DIVINE SAV/HOL ANGEL			2.81	2	100.0	3.55	•		2.72	•	96.9	1 2.97
INARQUETTE		•				•			2:32		74.4	2.321
IMESSMER			3.04		•	1.69	,		2.68	-		2.291
MILW LUTHERAN			1.76			1.67		•	2.30			2.09
INOTRE DAME.			1.97	•	•	3.07			3.75			2.93
PIUS ST JOAN ANTIDA			1.82			2.40	271		2.43			2.37
IST MARY ACADENY			2.26			2.84			1.02			2.12
THOMAS MOCRE		•	2.92 1. 95	•	-	1.20 2.03			2.83			2.24
WISCONSIN LUTHERAN		-	2.58	•	,	2.03		-	2.53			2.31
OTHER HILW PRIV	, .					1.89			1.94			2.57
DODGE COUNTY	· · · · · · · · · · · · · · · · · · ·				.		•	-	1.90			1.90
WALWORTH COUNTY	i .		-		ij	•			2.41	•		2.41
CUDAHY		86.3			-	2.19			2.94			2.67
FRANKLIN	2	87.5	1.81	•	•	1.84			2.56			2.361
BROWN DEER	21	83.3	3.39			2.41			2.80			2.73
GREENDALE	1	100.0	3.08	15	83.4	2.48	21		2.56			2.54
GREEFIELD		80.5	-	13	89.61	2.12			2.65			2.41
HARTIN LUTHER		54.51	3.00			2.16]		.1				2.58
NILW UNIVERSITY				.].	.	.		•	4.00	•		4.001
NICCLET		96.21	•		90.4	•			2.131			1.93
SHOREWOOD		75.0	•		67.21				2.06]	-		1.831
SOUTH MILWAUKEE		77.1	-		-	2.18			2.59	•		2.38
OAN CREEK		1.0 01	•			2.34	•		1.461	•		2.43
ST FRANCIS WAUWATOSA BAST		100.0	•		80.01	-	•	•	2.43			2.41
WAUWATOSA WEST		100.0j	*		80.9				2.80	•		2.53
WEST ALLIS CENTRAL		84.6	-			2.29			2.74			2.691
WEST ALLIS HALE		80.0			87.6	2.13			2.57			2.421
·····································	3		1.30	161		ارداء) (د13)						2.47:

Table 1 (Continued)

AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-TESTED IN 1988/89 WITHIN ASSET NUMERIC SCORE GROUPS BY HIGH SCHOOL (AS OF AUGUST 22, 1989)

10540 00000 1000	:		,	1007B		10 000n	n					
High School Name	; 			19961		C SCOR	B 			i I		
÷	1 11	OR LO	WER	1	2 TO 1	8	19	OR HIG	HER	 	TOTALS	I
			GPA			GPA	1		GPA			GPA
	•	HBAN	HEAN	N	MBAN	HBAN	H	MBAH	MEAN	N	MEAN	HEAR
WEST HILWAUREE	1 2		2.17			1.67						•
WHITE FISH BAT			ا، ا		95.7	2.48	12	76.2	1 2.08	1 19	83.7	2.23
DONINICAN			2.61			2.11	•		2.66			2.39
WHITHALL	1 3	92.9	2.14			2.55		88.7	2.68			2.58
OTHER MILW			1.03			2.27			2.22			1.94
CEDARBURG	i .		.	3	89.7	2.04					87.2	2.64
PREDONIA	1 .					أ. أ	5	76.0	1 3.971	. 5	76.0	3.07
GRAFTON	1 .				73.3	1.63	9	79.8	2.25	15	177.2	2.001
HOMECARAD	1	75.0	2.43	7	83.8	2.52	Ł,	62.8	1.58	141	74.2	2.11
PORT WASHINGTON	1 .		.	4	82.9	2.59			2.74			2.66
OTHER OZAUKEE	i .	.				: :						2.82
Washington High	1 3	96.4	2.02			2.67			2.63			2.571
OTHER WASH COUNTY	1 1	100.0	2.78			2.06	•		2.53		-	2.40
BROOKPIELD CENT			1.96			3.00						2.671
BROOKFIELD EAST	1.	.				2.66						2.791
HENON PALLS NOR	1	25.01	2.38			i i		100.0	1 4.001	2	62.5	3.19
MENOM PALLS BAST			3.44			3.19			2.50			2.73
Muskego	1 1	100.0	1.81			3.19	•		3.12	•		3.03
RISENHOWER	i .	.				2.77	•			•		2.59
NEW BERLIN	1 .1	j.				1.87				•		2.76
WAUKESHA HOR/SOU	i 2 j		1.60	7	82.7	2.13	81	89.71	2.42			2.21
WAUKESHA MEMORIAL	i .İ					2.55			1.96			2.13
OTHER WAUKESHA		-	1.70	•		1.24	•					2.26
RACINE COUNTY			3.00			2.95			1.91			2.17
KEHOSHA COUNTY						2.71			2.32			2.39
SHEBOYGAN COUNTY						2.91					84.61	3.371
OND DU LAC COUNTY	i .		. i	1 1	100.0	3.00	2	90.6	3.081	31	93.71	3.06
OTHER WISCONSIN HS	23	77.8	1.78	78	85.3	2.18	84	87.71	2.691	185	85.41	2.361
THER STATES HS	39	80.41	1.55	143	82.2	2.18	101	83.01	2.46	3331	82.01	2.101
OTHER COUNTRIES HS	1	60.01	3.63			ı,						
ED TEST ONLY	1	0.01	0.00	[. j							0.001
LL	411	80.41	1.75			2.08	1241	85.21	2.431	26381	83.21	2.191



AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-TESTED IN 1988/89 WITHIN ASSET READING SCORE GROUPS BY HIGH SCHOOL (AS OF AUGUST 22, 1989)

High School Name		ASSET READING SCORE									
	10 TG 14	15 TO 19	20 OR HIGHER	9 OR LOWER	TOTALS						
1	CMP% GPA		+	CMP% GPA	CMP% GPA						
į											
A>+************************************	N MBAN MBAN	N MBAN MBAN	N MBAN MBAN	N MBAN MEAN	N MEAN MEAN						
IBYAAIBM	7 72.0 2.30	19 90.4 2.17	65 86.7 2.45	2 75.0 0.54	93 86.1 2.34						
CUSTER	5 66.5 2.15	•			75 84.6 2.01						
HAMILTON JUNEAU	7 84.4 1.89 3 36.7 1.45		•	3 66.7 2.08	57 82.8 2.14						
RING	4 75.0 1.90		•	1 85.0 1.00 	31 78.4 1.70 52 82.6 1.93						
MADISON	9 75.6 2.06			3 66.7 0.31	69 86.3 2.16						
HARSHALL	9 71.0 1.43	•	• • • • • • • • • • • • • • • • • • • •	1 1 1	66 76.9 1.72						
MILW TECH	4 73.5 2.06	•	. , , ,		92 84.3 2.26						
NORTH DIVISION PULASKI	20 81.5 1.50 6 83.3 2.24			2 100.0 2.90	83 75.4 1.75						
RIVERSIDE	7 75.3 0.52	• •	· · · · · · · · · · · · · · · · · · ·	3 77.8 1.30	76 86.0 2.21 54 76.6 1.43						
SOUTH DIVISION	12 33.3 2.22		•		71 79.3 2.20						
VINCENT	2 30.0 2.31		25 74.3 1.49		40 72.8 1.46						
WASHINGTON	17 92.5 1.72		•		83 84.6 1.61						
WEST DIV/ARTS OTHER MILW PUBLIC	8 86.4 1.86 1 75.0 2.70		• • • • • • • • • • • • • • • • • • • •	1 100.0 2.00 1 68.7 0.45	44 78.3 2.10						
HATC ADULT HS	23 81.8 1.72			1 05.7 0.43	12 90.5 2.26 94 78.8 1.94						
DIVINE SAV/HOL ANGEL	1 11100.01 2.09	• • •	, , , ,		8: 95.9 2.97						
MARQUETTE					3 74.4 2.32						
HBSSHER			· · · · · · · · · · · · · · · · · · ·		14 94.0 2.29						
INILW LUTHERAN INOTRE DAMB		1 100.0 1.76 2 100.0 2.45		1 1 1	21 80.1 2.09 9 88.9 2.93						
PIUS	6 70.0 1.90	, , , ,			61 77.8 2.37						
IST JOAN ANTIDA	2 76.9 2.03	3 86.7 1.00	, , ,		20 85.21 2.12						
IST MARY ACADEM?	1 1/ 50.0/ 3.25				19 31.5 2.24						
THOMAS MOORE WISCONSIN LUTHERAN		2 88.5 2.62 1 100.6 0.50	· · · · · · · · · · · · · · · · · · ·		23 92.3 2.31 15 96.0 2.67						
CTHER MILW PRIV					6 90.3 1.92						
IDODGE COUNTY					2 83.3 1.90						
WALWORTH COUNTY				-1 -1 -1	4;100.0! 2.41;						
CUDAHY FRANKLIN	. . . 1'100.0' 0.46			11100.01 2.81	37 86.5 2.68						
IBROWN DEEK	1,100.010.40	أحمينه أميما			30 89.0 2.36 17 96.7 2.78						
GREENDALE	2 30.0 2.80		· · · · · · · · · · · · · · · · · · ·		37 82.6, 2.54!						
GREEFIELD	1 1 1 1 1 0 0 . 0 2 . 35	5 91.1 1.62	38 86.0 2.49	4 4 4	44 86 9 2.36						
HARTIN LUTHER	.! . .		· · · · · · · · · · · · · · · · · · ·		21 77.31 2.58;						
INILW UNIVERSITY INICOLET	. . . 4:80.8:1.24	and the second s	1 100.0 4.00		1 100.0 4.00						
, SHOREWOOD	1 4: 03.0 1.24	1 1 1 1	17 84.4 2.10 11 78.7 1.99	. . . 1 0.0 0.0 0	22 84.5 1.93 12 72.1 1.83						
SCUTH MILWAUKEE	5 77 1 1.72		· · · · · · · · · · · · · · · · · · ·	, , , ,	54 84.5 2.36!						
JAK CREEK	1 66.7 1.47	12 39.2 2.67	39 89.8 2.38		52 89.2 2.43						
ST FRANCIS	1 11100.0 1.20			4 4 4	251 88.7 2.41						
WAUWATOSA BAST WAUWATOSA WBST	1 100.0 0.28		, , ,		33 79.81 2.58						
WEST ALLIS CENTRAL	1 1 100.0 2.63	أحمانه المانية	17 86.3 2.61 38 88.1 2.41		21: 86.8 2.60 44: 87.8 2.42;						
PRET STIS HALE				2 60.0 1.79	42 83.9 2.47						
ERIC	*****										

Table 2 (Continued)

AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-TESTED IN 1988/89 WITHIN ASSET READING SCORE GROUPS BY HIGH SCHOOL (AS OF AUGUST 22, 1989)

iHigh School Name	· · · · · · · · · · · · · · · · · · ·	ASSET REAL	DING SCORE		
1	10 TO 14	15 TO 19	20 OR HIGHER	9 GR LOWER	 TOTALS
	CMP% GPA			1	
	N MBAN HEAR	, ,	''''	N MBAN MBAN	
WEST MILWAUKEE		. 1 100.0 0.00			16 86.9 2.31
WHITE FISH BAY	1 100.0 2.0				19 83.71 2.23
: COMINICAN WHITHALL	1 1 1 1 0 0 . 0 2 . 4	· · · · · · · · · · · · · · · · · · ·		•	
OTHER HILW		. 3 76.2 1.98			
CEDARBURG	1 0.0 1.5				•
; FREDONIA	1 11100 01 2 5	. 2 73.1 2.04	, , ,		•
GRAFTON	1 100.0 2.5 . .	I ALAB PLA HAL	• • • •	. . .	
HONESTEAD					
IPORT WASHINGTON		1 01 75 01 1 051			· '
OTHER OZAUKES					•
WASHINGTON HIGH	2 100.0 1.6			. . .	
OTHER WASH COUNTY	a i i	. 1 33.3 1.00		2 94.6 1.22 • • • •	
BRGOKFIELD CENT	1 1 1			
BROOKFIELD BAST		1 1 100.0 3.68			
MENOM FAULS NOR	1 1 1		2 62.5 3.19		
NENOM FALLS EAST		2 100.0 3.21			
Muskego		1 62.5 2.27			
BISENHOWER	1 81.2 2.3				
NEW BERLIN	1 .1 .1	1 1 100.0 3.11			
WAUKESHA NOR/SOU		2 66.7 1.60	15 86.4 2.29		17 84.1; 2.21
NAURESHA HENDRIAL	1	2 100.0 2.55	5 73.3 1.96		
OTHER WAUKESHA	1 .1 .1	1 1 1 1 1 0 0 . 0 . 5 2	24 76.8 2.33		251 27 71 2 261
RACINE COUNTY	1 75.5 3.00	3 93.3 3.00	24 82.4 2.03		
RENOSHA COUNTY		1 1 1 1 1 1 0 0 . 0 3 . 6 7	10 90.6 2.26		
SHEBOYGAN COUNTY		3 100.0 3.73	6 76.9 3.19		9 84.6 3.37
FOND DU LAC COUNTY			3 93.7 3.06	ાં તે તે	3! 93.7! 3.06
OTHER WISCONSIN HS	20 79.8 2.00				185 85.4 2.36
OTHER STATES HS		1 108 83.7 2.13	157 83.1 2.15	10 87.7 1.90	
OTHER COUNTRIES HS		1 60.0 3.63		1	1 60.0 3.63
GED TEST ONLY	1 .] .]	1 0.0 0.00	्रों ते ते	1 0.0 0.00
ALL	1 258 78.0 1.85	521 83.3 1.99	1825 84.0 2.31	36 81.2 1.67	2640 83.3 2.19



AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-TESTED IN 1988/89 WITHIN ASSET LANGUAGE SCORE GROUPS BY HIGH SCHOOL (AS OF AUGUST 22, 1989)

High School Name		***	AS	SET L	NGUAG	B SCORE	}			 		
	39	OR LO	WBR	4(TO 4	7	48 (OR HIG	HER	 	To Pals	; ;
•	, 		GPA			GPA		CMP% 	GPA	' 	CMP%	GPA
	N	•	HBAH	,	MBAN	HBAN	,	•	MBAN	 N	HBAN	MBAN
RAYVIEX	-	-	2.17	40	•	2.07		,	2.86		86.1	2.34
CUSTER		•	1.91	•	81.0	1.67	15	92.6	2.90	75	84.6	2.01
HANILTON	•	•	2.15	. '	85.9	2.16	19	77.6	2.11	57	82.8	2.14
JUNEAU	•	•	2.24			1.61		-	1.02		78.4	1.70
KING			1.68			2.24			1.86		82.6	1.931
MADISON	•		2.28			2.16		95.2	2.04	69	86.3	2.16
MARSHALL	•	•	1.51			1.65		73.7	2.25	66	76.9	1.72
MILW TECH			1.82			2.31		85.5	2.69			2.26
NORTH DIVISION			1.40	•		2.04			2.06		-	1.75
PULASKI		•	1.45			2.05			2.69		•	2.21
RIVERSIDE	•		1.31	•		0.95			2.50			1.43
SOUTH DIVISION	•	-	1.97			2.20		88.3	2.55			2.20
VINCENT			1.00	•		1.45			1.99		72.8	1.46
WASHINGTON	•	•	1.89			1.38			1.48			1.61
WEST DIV/ARTS	•		2.12		-	2.01			2.25			2.10
OTHER MILW PUBLIC		•	2.03			2.62	•		3.00		•	2.26
NATC ADULT HS			2.03	•	-	1.76			2.28	•		1.94
DIVINE SAV/HOL ANGEL	! 2		2.71			2.81	•		3.11		-	2.97
MARQUETTE	i .]		•	•	•	2.20			2.38			2.32
HESSHER			1.16	•		2.66						2.29
MILW LUTHERAN			1.83			1.68					-	2.091
NOTRE DAME	•		1.00			2.45			3.41			2.93
PIUS			2.21	•		2.26			2.54			2.37
ST JOAN ANTIDA			1.94			2.56			2.00			2.12
ST MARY ACADEMY			1.86			2.37	,	•	2.20			2.24
THOMAS HOORE			2.521	•		2.03	•		2.47			2.31
WISCONSIN LUTHERAN			0.50	•		2.78			2.85			2.67
OTHER MILW PRIV			3.00			1.31			3.25			1.92
DODGE COUNTY	•		-	\cdot		•						1.90
WALWORTH COUNTY			2.90	•					2.25	-	•	2.41)
CUDAHY			2.24	•	•	2.56	•		2.95			2.58
FRANKLIN			2.07	•	•	2.47	•		2.44			2.36
BROWN DEER			3.17	-	•	2.39		•	3.041			2.78
GREENDALE			1.91	•	-	2.51	•		2.81			2.541
GREBFIELD			2.20	-		2.26			2.60i			2.41
MARTIN LUTHER	. !		إ٠			2.58	.					2.58]
NILW UNIVERSITY	. !	-		.			-	-	4.001	•		4.001
NICOLET			2.17			1.97	-		1.70			1.931
SHOREWOOD			0.23			2.291			2.45			1.83
SCUTH MILWAUKEE			2.12			2.671	•		2.13			1.381
OAK CREEK			2.39		•	1.94	•	-	2.741			2.43
ST FRANCIS		•	2.54	•		2.12			2.591			2.41
WAUWATOSA BAST		•	2.19	•	•	2.53	•	-	2.731	-		2.58
WAUWATOSA WEST			2.29			2.33			2.96	•		2.60
WEST ALLIS CENTRAL			1.42		-	2.43			2.761			2.421
iest allis hale	51	64.0	1.14	19	86.5	2.38	18	36.6	2.93	42	83.9!	2.47!

Table 3 (Continued)

AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-TESTED IN 1988/89 WITHIN ASSET LANGUAGE SCORE GROUPS BY HIGH SCHOOL (AS OF AUGUST 22, 1989)

High School Name			A	SSET L	ANGUAG	E SCORI	: :	.	• • • • • •	 I		
	39	OR LO	WER	4	0 TO 4	7 (48	OR HIG	HER	<u> </u> !	TOTALS	
	i	CMP%	GPA	† - 	CNP3	GPA	 	CMP%	GPA	+ !	CMP%	•
 	 N	HBAN	HEAN	 N 	MBAN	MBAN	 H	•	+ HEAN	•	 NEAN	
WEST MILWAUKEE	1 3	83.3	2.27	† ~ ~ ~ ~ ~ ?	† 92 7	2.12	 م	1 1	2.55	† ≀ ≀	+ 86.9	;
WHITE FISH BAY		-	3.13		•	2.12 1.83		-	2.66	•	63.7	•
DOMINICAN			1.79	•	•	2.36		-	2.95	•	90.2	
WHITNALL			1.98			2.65			2.74		88.1	
OTHER MILW		-	1.70	•	-	0.21		•	3.39	•	75.0	-
CEDARBURG	-	•	2.84		-	2.54			2.72		87.2	
PREDONIA			2.75	•	•	2.38			3.74		76.0	•
GRAFTON	-	•	1.88		,	1.84			2.44		77.2	
I HOMESTEAD			2.22		•	2.20			2.01		74.2	
[PORT WASHINGTON	i .					2.34			3.45		81.9	
IOTHER CZAUKEE			:						2.82		100.0	
WASHINGTON HIGH	1 4	•	1.85			2.58			2.92		92.8	
OTHER WASH COUNTY	1	100.0	4.00			2.15			2.46		78.1	
BRGOKFIELD CENT	1	50.0	2.13		•	2.56			2.91		76.6	
BROOKFIELD BAST			j .j			3.09			2.55		81.2	
HENOH FALLS NOP			i			3.19			,		62.5	-
INENON FALLS EAST	j .	,	į . į			2.93		•	2.56		96.2	
Muskego	į .			-	-	2.90		•	3.27	•	86.4	
BISENHOWER	1 1	100.0	3.85			2.35		•	3.56		94.2	
NEW BERLIN	3	44.4	2.14			1.56	•		3.61		83.3	
WAUKESHA NGR/SOU	2	66.7	1.60	6	89.61	2.29		•	2.29		84.1	
WAUKESHA MEMORIAL	1	100.0	2.46	3	66.71	2.56			1.58	•	81.0;	-
OTHER WAUKESHA	3	100.0	1.40		•	2.14	•		•		77.7	
RACINE COUNTY			2.35			2.28			2.01		83.31	
KENOSHA COUNTY			2.33	•		2.86	•				91.4	
SHEBOYGAN COUNTY	1 3	100.0	3.90	3	53.7	2.61	3	100.0	3.601	91	84.61	3.371
FOND DU LAC COUNTY			2.17	1	100.0j	3.00	11	100.0	4.00	31	93.71	3.06
OTHER WISCONSIN HS	50	81.4	2.18			2.24					85.4	
OTHER STATES HS	146	82.9	1.97			2.08					92.0	
OTHER COUNTRIES HS	۱ . ا	.1	1			3.63	į.		.i		60.0	
IGED TEST ONLY	. 1	0.0	0.00	.1	.1	.1					0.0	
ALL	734	81.9	1.93			2.12	797	84.81	2.531	2639	83.31	2.191



ASSET SCORES AND GPA BY MATC PROGRAM

Tables 4, 5, and 6 show ASSET numeric, reading, and language scores and mean grade point averages by MATC instructional program. Some highlights shown on these tables are:

- 1. GPA increased with ASSET numeric, reading, and language score. Students in the lowest grouping had mean GPA below 2.0 for all three ASSET tests. Students with ASSET scores above the following scores had mean GPAs above 2.0: Numeric 12 or above, Reading 15 or above, Language 40 or above.
- 2. Students in 14 (12%) of 117 programs had a total mean GPA below 2.0 as follows:

Pre-Business	1.74
Business Mid-Management	1.88
Pre-Graphics	1.84
Pre-Service	1.36
Shoe Servicing	1.34
Automatic Screw Machine	1.88
Crossover	1.69
Industrial Sewing	1.18 (lowest mean GPA)
Horticulture	1.79
Clerk Typist	1.21
Auto Servicing	1.90
Hydraulics-Pneumatics	1.83
Welding	1.91
Visual Communication	1.72

Pre-Health (2.24) is the only preparatory program in which total mean GPA was above 2.0.

3. Distribution of total mean GPA by program is as it follows:

Number	
of Programs	
14	12.0%
42	35.9%
37	31.6%
19	16.2%
<u> 5 </u>	4.3%
117	100.0%
	0f Programs 14 42 37 195

All programs had small number of students with ASSET scores. Highest number was 8 students in Dental Assistant program with mean GPA of 3.51.



TABLE 4

AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-T: STED IN 1988/89 WITHIN ASSET NUMERIC SCORE GROUPS BY PROGRAM (AS OF AUGUST 22, 1939)

Program Title	• • • • • • • • • • • • • • • • • • •	-*		ASSET 1	NUMERI	SCORE	 3	• • • • • •	****	 !		
	1:	OR LO	WER	1	2 TO 1	}	19 (OR HIG	HBR	 '	TOTAL	ļ
	• • • • • • • • • • • • • • • • • • •	CHPS	GPA	`.	CMP%			•	GPA			GPA
	, % 	MBAN	MEAN	•	MBAN	MBAN	N	MBAN	MEAN	N	HBAN	HEAN (
HORTICULTURE - LANDSCAPE MGT						2.05	3	79.8	2.61	6	70.3	2.33
PRE-BUSINESS			1.91					•	1.63	•	-	1.73
! ACCOUNTING			1.96		90.2	,			2.48		:	2.31
BUSINESS HID-HANAGEMENT BANKING AND FINANCIAL SERVICES		•	0.74	•	68.4		•		1.95			1.88
MARKETING MANAGEMENT		1 75 2	. 2.33					•	2.14		•	2.02
FASHION MERCHANDISING			2.33 2.12						2.19 2.751		•	2.08 2.35
RETAIL MANAGEMENT			2.02	1 2	12.0 90.0	2.32 3.10	ار ا ع	31·1 66 7	4.!J 1 54	10	70.5	2.35
TRANSPORTATION & DISTRIBUTION		00.5	•									2.88
ADMIN ASST-SECRETARIAL			2.60						2.50			2.52
LEGAL SECRETARY			2.44		92.9			•	2.60			2.53
MEDICAL SECRETARY			1.81		83.3	•			2.80			2.59
ADMIN ASST-INFO PROCESSING	3	100.0	2.90		84.8	•			3.26			3.02
BUSINESS LATA PROCESSING	1	100.0	3.48	9	64.3	2.29	25	83.4	2.44	35	78.9	2.43
COMPUTER INFORMATION SYSTEMS			.	1	100.0	2.52	4	85.4	2.19	5	88.3	2.26
HOTEL/HOTEL HANAGEHENT	•	١.	.	2	71.4	2.47	3	98.1	3.47	5	87.5	3.07!
LEGAL ASSISTANT			2.41	-	72.2	2.47	9	87.4	2.77	17	81.2	2.63
MARKETING COMMUNICATIONS			2.48		91.7							2.18
REAL ESTATE	,		ا، ا		83.3							2.22
HATERIALS MANAGEMENT	•				50.0				3.12			3.04
SUPERVISORS MANAGEMENT	•	•		-	100.0	,	•			•		3.47
PRE-GRAPHICS			1.45		80.9				2.01			1.84
COMMERCIAL ART			2.77									2.37
PHOTOGRAPHY			3.36		55.6	•	,	•	1.82	•		2.00
PRINTING & PUBLISHING-OPERATIONS			2.59	-	96.2	•			2.46	•		2.54
VISUAL COMMUNICATIONS/VIDZO PRE-HOME ECONOMICS	11				100.0				1.84	•		1.72
DIETETIC TECHNICIAN			1.50 2.40		74.3			•	2.77			2.54!
INTERIOR DESIGN	. !				88.6	. 3 141			3.12			2.88
CHILD CARE AND DEVELOPMENT	• •	i			65.9				2.93	•		2.92
ENVIRONMENTAL SERVICES MANAGEMENT			· · · · · ·	•	100.0	•	•	,	2.41	•		2.50
PRE-HEALTH		,	1.89	'.	92.7	,	•	•	2.27	,	•	2.23
FIRE SCIENCE	.]				100.0	•	,	,	2.73			2.63
POLICE SCIENCE	5		1.98	•	84.9	•			2.15			2.12
ENVIRONMENTAL & POLLUTION CONTROL	.			. i		.1	•	•	3.86			3.86
REGISTERED NURSINC	1	0.0	2.96		92.3	•	17:	88.2	2.86			2.81
RESTAURANT AND HOTEL COOKERY	1	91.7	2.02	11	91.8	2.61	11	89.5	2.901	23	90.71	2.72
MEDICAL LABORATORY TECHNOLOGY	.1	. 1	.1	1	0.01	2.80	3	81.0	2.61	4	60.7	2.65
OCCUPATIONAL THERAPY ASSISTANT	.	.	.1	6	96.41	2.64	9	92.01	2.83	15	93.8	2.761
RESPIRATOR? THERAPY			•		50.0	-	4	100.0	3.13	6	83.3;	2.51
HUMAN SERVICE ASSOCIATE	19	84.7	2.18	38	79.2	2.01		•	2.41	•		2.19
PHYSICAL THERAPIST ASSISTANT	. !1		•	3.50		-	3.50
RADIOGRAP"Y	.					.1	•		2.90	•	•	2.90
PRE-SERVICE			2.08	•	67.41	•			2.80	•	,	1.36
PRB-TBCH			1.83		83.0		-	-	2.14			2.07
AIR COND AND REFRIGERATION TECH	.!			i	90.0	i	•		2.75			2.58
CHENICAL TECHNOLOGY	.	. 1	. !	.	.	.	2	100.0	3.32	2	100.0	3.33;



Table 4 (Continued)

AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSETTESTED IN 1988/89 WITHIN ASSET NUMERIC SCORE GROUPS BY PROGRAM (AS OF AUGUST 22, 1989)

Program Title				ASSET	NUHERI	C SCORE	}			 		
	11	or to	WER	1	2 TO 1	β (19	OR HIG	HER	 	TOTALS	
•		CMP%	GPA		CHP%	GPA		CHP%	GPA		CHP%	GPA
	N	MBAN	HBAN	 N	MBAN	MBAN	N	MEAN	HEAN		HBAN	MEAN
INDUSTRIAL ELECTRONICS			•			2.82				11	59.4	2.37
COMMUNICATIONS						2.33				4	100.0	2.38
COMPUTER SCIENCE				-		.		•	2.73	10	90.0	2.73
BIONEDICAL BLECTRONICS						ļ • ļ			3.12			3.12
ELECTRONIC SYSTEMS TECHNICIAN					٠.							2.56
MECHANICAL DESIGN TECHNICIAN			! .						2.82		•	2.82
STRUCTURAL TECHNICIAN						2.60			2.21			2.34
PUBLIC WORKS TECHNICIAN	•		.				2	100.0	3.18	2	100.0	3.18
ELECTRONIC DESIGN AND PACKAGING												2.70
NETALLURGICAL TECHNOLOGY						2.50			3.18	6	60.3	3.08
ARCHITECTURAL TECHNOLOGY	•			•		2.74	6	83.5	2.10	7		2.19
PLASTICS TECHNICIAN		•				2.00			3.50			2.75
AUTONATED NANUFACTURING TECHNOLGY						1.52						2.43
WELDING TECHNOLOGY	•					3.14						•
INDUSTRIAL ENGINEERING TECHNICIAN		-				•		•	2.65		•	2.65
COMPUTERIZED MACHINING TECHNICIAN					.	 1 20						2.87
PRE-TELECASTING			1.77			1.28					-	2.09
TRLECASTING		. ! 02.2			•	1.89			•	•		2.09
OCCUPATIONAL MUSIC		•	0.77			2.17						2.44
CROSSOVER PRE-HEALTH CROSSOVER			2.24			1.69						2.04
LIBERAL ARTS		•	1.59			1.69			2.03	•		1.69
SMALL BUSINESS TRAINING PROGRAM			1.73			2.05			2.21			2.12
AUTONATED BUSINESS SUPPORT SPEC			.			3.71 3.06			3.11			
DATA BHTRY		ı		•		:	•	•	•	•		3.05 2.29
TRAVEL INDUSTRY (AGENT) TRAINING	٠ ١		2.18			2.44	-	-	3.33	•		2.31
INDUSTRIAL SEWING OPERATOR TRNG			1.06	•		1.78		.		•	-	1.18
INFANT/TODDLER CARE SERVICES			1.99	-	-	3.37						3.05
AIR COND REF & HTG			 			1.40			2.97			2.31
NURSING ASSISTANT			1.67		•	2.20			2.08			2.02
HEALTH UNIT CLERE			2.44			3.00			3.33			3.11
HORTICULTURE			1.57			2.00			1	•		1.79
WORD PROC. SPECIALIST			2.37		•	2.41		-	3.59			3.03
CLERK-TYPIST		•	1.12	•		1.24		•	1.34	•		1.21
PRINTING			•			2.47	•		-	-		2.56
ALTERATIONIST			3.27	•		3.05			3.571			3.20
FOOD PREPARATION ASSISTANT		•	1.26	*.		3.18			2.65!			2.15
RETAIL BAKERY PRODUCTION			2.73	•		1.97	•	•	.		-	2.48
INTERIOR DESIGN ASSISTANT			•			•			3.17			3.17
CHILD CARE SERVICES	ij					1.90						2.35
AIRFRAME AVIATION MECHANIC					•				2.95			2.95
POWERPLANT AVIATION HECHANIC								•	2.51		•	2.51
AUTOMOBILE BODY SERVICING	•		2.64	-		2.96			3.55	•		3.15
AUTOHOBILE SERVICING			1.17		•	1.57	•	•	2.54			1.90
BRICKLAYING AND MASONRY			:		•	3.04						3.04
ABINETHAKING & MILLWORK			1.72			2.61	•	-				2.91
ARPENTRY					•	2.52	•		2.62	•		2.59

Table 4 (Continued)

AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-TESTED IN 1988/89 WITHIN ASSET NUMERIC SCORE GROUPS BY PROGRAM (AS OF AUGUST 22, 1989)

Program Title				ASSET	NUMERI	C SCORE					******	* * * * * *
1 1	1	1 OR L	OVER	1	2 TO 1	8		OR HI	GHBR	•	TOTALS	3
 	! ! N		GPA	·Í		GPA +				. 4	CHP%	1
	N 	//////////////////////////////////////	MEAN	N	IMBAN	MBAN	N	HEAN	HEAN	j n	HEAN	HEAN
HACHINE TOOL OPERATIONS AUTOMATIC SCREW MACHINE OPERATOR MECHANICAL & COMPUTER DRAFTING SHOE SERVICING UPHOLSTERY JEWELRY SERVICES & SALES WELDING COMP. NUMERICAL CONTROL MACH/OPR APPLIANCE SERVICING SMALL ENGINE AND CHASSIS MECHANIC INDUSTRIAL PLASTIC BARBER/COSMETOLOGY DENTAL ASSISTANT	2 2 8 12 5 11	100.0 100.0 91.2 100.0 100.0 91.2 94.3	0 2.44 	3 6 2 8 4 4 4 4 8 8 8 8 9 9 1	100.0 79.5 100.0 87.6 75.7 70.0 66.7 100.0 86.4 96.5 0.0 100.0 95.3 85.3 75.5 90.1	2.30 2.31 0.68 1.93 1.88 2.75 2.08 2.65 2.22 1.40 3.47 3.32 2.99 3.42 1.92 2.74 2.32	9 9 16 6 6 1 1 1 1 1 1	81.6 91.0 100.0 87.6 100.0 100.0 100.0 100.0 100.0 75.1 00.0 93.9 94.0 96.4	3 2.93 2.52 3.50 2.91 3.27 3.27 3.96 3.50 3.50 3.71 2.75 2.75 2.75 3.03	13 '5 4 26 12 12 11 21 21 39 39 8 25 23	87.4 86.4 100.0 87.9 75.7 90.0 95.0 95.0 96.7 50.0 100.0 100.0 91.1	+
ALLOR LECTRONICS SERVICING COL AND DIE MAKING OROLOGY (WATCHMAKING) LL PROGRAMS	1	0.0	2.42	. i	. 13.3 25.0	2.85 	1 1 2 1(4 1	00.01 60.01 00.01	3.50	2 1 3 5	71.1	2.97 2.33 3.02



TABLE 5

AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-TESTED IN 1988/89 WITHIN ASSET READING SCORE GROUPS BY 100/200/300 LEVEL PROGRAM (AS OF AUGUST 22, 1989)

Program Title	ASSET READING SCORE										ļ				
	1) TO 1	<u> </u>	1	5 TO 15	9	20 (OR HIG	HER	9	OR LOW	BR .	 	TOTALS	
		CNP%	GPA		CMP%	GPA			GPA		ì	GPA			GPA
 	N	HEAN	MEAN	N	Hean	+ Hean	,	 NBAH	HEAN	l N	MBAN	MBAN	i N	MEAN	MEAN
HORTICULTURE - LANDSCAPE HGT		† 	 .	,	† 	† .	3	70.3	2.33	 	† 		6	70.3	2.33
PRE-BUSINESS	•		2.12	•		2.20	•	•	1.63			2.91		•	1.74
ACCOUNTING		•	2.40		•	2.73		•	2.24					•	2.31
BUSINESS HID-MANAGEMENT	•	•	3.17	•	•	2.06		•	1.79 2.33	•	•] . 	•	:	1.88
BANKING AND FINANCIAL SERVICES MARKETING MANAGEMENT		•	2.20 1.93			1.18 1.83		•	2.33			. .		-	2.11 2.08
FASHION MERCHANDISING					•	2.46	•		2.32	•	<u> </u>				1 2.35
RETAIL MANAGEMENT	i .		1		`.	2.41		7.	1.50		ì.	i i		•	2.15
TRANSPORTATION & DISTRIBUTION		•	i .i		:	iii			2.88	•	j.	•	•		1 2.98
ADMIN ASST-SECRETARIAL			•		•	2.91	11	85.1	2.49	١.	1 .	[.	12	1 86.3	2.52
LEGAL SECRETARY	1	100.0	2.45			.	20	84.4	2.54		.	.			2.53
HEDICAL SECRETARY		١.	•		•	1.31	•		2.75		i .			·	2.59
ADMIN ASST-INFO PROCESSING		•	1.88		*	3.33		•	3.07		ļ ,	ļ ·		•	3.04
BUSINESS DATA PROCESSING		i	1.52	•		3.01			2.39		ļ ·		-		2.43
COMPUTER INFORMATION SYSTEMS			•		•	1.10			2.55		ļ .	•			2.26
HOTEL/HOTEL MANAGEMENT	•		•	•	1 1 00. U	3.11	•		3.06		ļ ·	.			3.07 2.63
LEGAL ASSISTANT	1	ì	2.15	i	·	• •	٥	•	2.66 2.18			. .		•	2.18
MARKETING COMMUNICATIONS REAL ESTATE		•	; •		i	 	-		2.22	•	•	!			2.22
INATERIALS HANAGEHENT	. .		! •∣ 	1	i	i • ! i		•	3.04						3.04
SUPERVISORS HANAGEMENT	.			1		• 	•		3.47					-	3.47
PRE-GRAPHICS	! ! .				1100.0	1.82			1.84		i i				1.84
ICONNERCIAL ART	1	100.0	0.00	•	•	2.40	•	•	2.41	•				•	2.3?
PHOTOGRAPHY			:	1	•	3.45		•	1.95		j .		30	1 74.3	2.00
PRINTING & . JBLISHING-OPERATIONS					90.0	2.02	19	88.7	2.62	,		1 .	1 46	; 33.9	1 2.54
VISUAL COMMUNICATIONS/VIDEO.			,		1 .		•		1.72	•		1			1.72
PRE-HOME ECONOMICS	1	1100.0	2.27			2.77			2.51			! .1			2.54
DIETETIC TECHNICIAN		•		•	.		•	-	2.88						2.88
INTERIOR DESIGN	_		3.54			3.35		-	2.75						2.90
CHILD CARE AND DEVELOPMENT			-			i i	•	•	2.92	•		1.5		-	2.92
BUT TO THE SERVICES HANAGEMENT			1.92			 2.36			2.69 2.22			.; 1.92		•	1.50 2.24
PRE-HEALTH			2.19	ĭ	i .				2.63	•	i .				1 2.63
FIRE SCIENCE POLICE SCIENCE	. 1		. 2.91			1.88			2.10			'			2.11
ENVIRONMENTAL & POLLUTION CONTROL				,	03.0 .				3.86		.	•		•	3.86
REGISTERED NURSING									2.81						2.81
RESTAURANT AND HOTEL COOKERY						2.19	•		2.80						1 2.73
MEDICAL LABORATORY TECHNOLOGY		-							2.65						2.65
OCCUPATIONAL THERAPY ASSISTANT	1		2.40	•	-	2.48		•	2.80					93.3	1 2.76
RESPIRATORY THERAPY	•		0.00] .	•	•	3.01	•		; <u></u>	-	•	2.51
HUMAN SERVICE ASSOCIATE	•		2.28	14	88.4	[2.25]		-	2.15		•	3.00			1 2.19
PHYSICAL THERAPIST ASSISTANT					<u>.</u>		•	: .	3.50		ļ .	•	•	•	3.50
RADIOGRAPHY	,			•	•	2.70			2.95		١.				2.90
PRE-SERVICE	•	•	2.90	•	•	1.33	•		1.22			.	-		1.36
PRE-TECH	•	•	2.42			2.46			2.02			! .			2.J"
FIERIC AND REPRIGERATION TECH	j 1	1100.0	2.59				ļ ÿ	87.6	2.57	i .	1 ,		, III	70./	2.58

Table 5 (Continued)

AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-TESTED IN 1988/89 WITHIN ASSET READING SCORE GROUPS BY 100/200/300 LEVEL PROGRAM (AS OF AUGUST 22, 1989)

Program Title	ASSET READING SCORE														
,	1	0 TO 1	 4	1	5 TO 1	9	20	OR HIG	HER	9	OR LOW	BR		rotals	
		CMP%	GPA		•	GPA			GPA		CNP%	GPA			GPA
i	 N	MBAH	HEAN	N	•	+ MBAN	,	MEYN	MBAN		HBAN	MBAN		HEAR 	HEAN
CHENICAL TECHNOLOGY	,		.	.				-	3.33		•	.	2	100.0	3.33
INDUSTRIAL BLECTRONICS									2.37			.!			2.37
CONNUNICATIONS	·	•	,		-	2.73			2.26		-				1 2.38
COMPUTER SCIENCE BIOMEDICAL ELECTRONICS					:	2.23		•	2.79 3.12		•				1 2.73
BLECTRONIC SYSTEMS TECHNICIAN	 	i •				. 2.57		•	2.56		•	. .		•	3.12 2.56
MECHANICAL DESIGN TECHNICIAN	•	27.3			10.5				2.89					:	2.82
STRUCTURAL TECHNICIAN		1100.0	•					:	2.76		•	i :i			2.34
PUBLIC WORKS TECHNICIAN	,					.		-	3.18			•			3.18
BLECTRONIC DESIGN AND PACKAGING					j .			1	2.70			•		-	2.70
NKTALLURGICAL TECHNOLOGY			j .		1 .		•		3.08			į i			3.08
ARCHITECTURAL TECHNOLOGY	١.	.	1 .		-	0.00		80.3	2.55		١.	.	7	83.1	2.19
PLASTICS TECHNICIAN		.	.		100.0	3.50	1	50.0	2.00			.	2	75.0	2.75
AUTONATED MANUFACTURING TECHNOLGY	1	100.0	2.50	•] .	ا . ا	2	100.0	2.40				3	100.0	2.43
WELDING TECHNOLOGY		.							3.16			.			3.16
INDUSTRIAL ENGINEERING TECHNICIAN	•	١.							2.65		•	<u> </u>			2.65
COMPUTERIZED MACHINING TECHNICIAN		,	,					_	2.87						2.87
PRE-TELECASTING	1	1100.0				3.50	'	-	1.91		•				2.09
TELECASTING		.			1			1	2.09	,			•		2.09
OCCUPATIONAL NUSIC	•	66.7			•				2.48						2.44
CROSSOVER PRE-HEALTH CROSSOVER		100.0				1.48		•	2.11				,		2.64
LIBERAL ARTS	-	75.8	•			1.72		•	1.55		•	1.53			1.69
SHALL BUSINESS TRAINING PROGRAM		71.5 82.4			i 80.11	1.97		1 "	2.13			.			2.12
AUTOMATED BUSINESS SUPPORT SPEC	,					 2.92		•	. 3.18		100 0	. 3.00			3.71 3.09
DATA ENTRY		1			1				2.29				•		2.29
TRAVEL INDUSTRY (AGENT) TRAINING	2	100.0				1.55			3.03						2.31
INDUSTRIAL SEWING OPERATOR TRNG		37.9				1.35			1.86			1.661			1 1.18
INPANT/TODDLER CARE SERVICES						2.96		-	3.13			·			3.05
AIR COND REF & HTG		81.2				0.75			2.66			•			2.31
NUASING ASSISTANT		, j				2.57			1.08			0.00			2.02
HEALTH UNIT CLERK	2	100.0	2.44	2	100.0	3.12	9	88.9	3.261	,					3.11
HOR''I CULTURE		-	. !			.		100.0	1.79	.1	. [.	2	100.0	1 1.79
WORD PROC. SPECIALIST		66.7				2.45			3.17				17	82.0	3.03
CLERK-TYPIST		67.1				1.29			1.46						1.21
PRINTING		100.0				1.84			3.15						2.63
ALTERATIONIST		100.0							3.33	.	-				3.20
POOD PREPARATION ASSISTANT	•					2.69			2.15			0.001			2.15
RETAIL BARBRY PRODUCTION		92.2				3.21			•			2.08			2.48
INTERIOR DESIGN ASSISTANT	٠,							•	3.17		,				3.17
CHILD CARE SERVICES	•					2.88			2.24	,					2.35
AIRFRAME AVIATION MECHANIC POMBRPLANT AVIATION MECHANIC	•	•			i	2.95				• أ		•			2.95
ANTONOBILE BODY SERVICING	•1		•		•	. l 2.89 j			2.51	ا ،		•			2.51
AMMANARTI B. ABBUTATUA		83.7i				1.95		•	3.25 2.22			. 1.82			3.15 1.90
RIC AYING AND MASONRY	16					1,331			2.22			3.04			1.90 3.04
KIC HILLIA HAN HANDIAN	,	• [• • • • • • • • • • • • • • • • • • • •		·	• • • • • • • •	, i		; · !	L	100.0			*****	, J.V4

Table 5 (Continued)

AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-TESTED IN 1988/89 WITHIN ASSET READING SCORE GROUPS BY 100/200/300 LEVEL PROGRAM (AS OF AUGUST 22, 1989)

f		• • • • •													
Program Title	i !	ASSET READING SCORE							ļ						
· ·	10	70 1	4	1	5 TO 1	9	20	OR HIG	HBR	1	OR LOW	IER	! ! '	TOTALS	;
i !			GPA		•	GPA		•	GPA	, 	•	GPA	•		GPA
; !			MEAN	•	HEAN	HBAN	 N	•	+ MBAN	N	•	HBAN	•	•	HEAN
CABINETMAKING & MILLWORK	4	95.2	1.17	5	100.0	3.35	14	99.0	11 3.29	1	; 100.0	2.29	241	98.7	+ 2.91
CARPENTRY	1 2	100.0	3.14	2	1100.0	3.09	11	100.0	2.38		1.	1.	•		2.58
COMBUSTION ENGINES SERVICING	3	73.6	2.09	.	! .	.	10	90.0	2.94			į.			2.74
/ ELECTRICITY	3	82.1	2.31	4	100.0	3.16	9	80.6	2.08		•	1.		•	2.39
HTDRAULICS-PHEUNATICS	1 .1		.	•		.	4	100.0	1.83		ĺ.				1.83
HAACHINE TOOL OPERATIONS	1 5	16C.0	2.72	5	95.0	2.54	15	80.3	2.37			2.39			2.47
AUTONATIC SCREW NACHINE OPERATOR	31	84.3	2.51			.	1	50.0	0.00		•	i			1.88
HECHANICAL & COMPUTER DRAFTING	4	84.6	2.34	2	100.0	2.90			3.22		ĺ.	j.			2.88
, ISHOB SERVICING	3	100.0	1.06	3	100.0	1.86	1	100.0	3.06		•	0.73		-	1.34
/ UPHOLSTERY	1 8	95.2	2.24	9	92.5	2.15	2	100.0	2.81			2.36	•		2.26
JEWELRY SERVICES & SALES	21	92.9	2.34	2	100.0	3.57	_		3.11		•	0.25	•		2.68
WELDING	8	95.0	2.32	5	100.0	1.13			1.68			2.98			1.91
! COMP. NUMBRICAL CONTROL MACH/OPR	1 .1		.	• 1		1.40			3.23						2.31
APPLIANCE SERVICING	1 .1								2.97			:			2.97
ISHALL ENGINE AND CHASSIS KECHANIC	i .i				•	3.93					•				3.93
INDUSTRIAL PLASTIC	1	100.0	2.73			i i			3.71	•		2.53			3.17
BARBER/COSHETOLOGY	1	100.0	3.25	10	100.0	2.98			2.95			•		•	2.97
DENTAL ASSISTANT	1 21	100.0	3.64			3.15	•	•	3.54			: .			3.51
INBDICAL ASSISTANT	1 .1	. 1	į , į	1	100.0	2.56	7		2.49	.4					2.50
IPRACTICAL NURSING	41	84.6	1.83			2.36	•	•	2.52						2.38
ISURGICAL TECHNICIAN	1 1	10 0. 0	2.00			•		•	2.89	i i				•	2.82
PHARMACY TECHNICIAN	1		ı, i	2		2.34		•	2.85			i		•	2.77
ITAILOR	1.1	اً ،	i i	. i		• 1			4.00	•		1.95	•		2.97
BLECTRONICS SERVICING	1	į.	أ، ا	1	•	3.22	•	•	1.89						2.32
FOOL AND DIE HAKING	1.1	, j				2.63	•	•	3.29						3.02
[HOROLOGY (WATCHHAKING)	1 1	i.	i. i	i,				•	2.42	Ϊ.					2.421
IALL PROGRAMS	3221	79.1	1.84	60 5 j	•	2.01				531		1.72			
•	•	•	•	•	•	•		1			1		!		



TABLE 6

AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-TESTED IN 1988/39 WITHIN ASSET LANGUAGE SCORE GROUPS BY PROGRAM (AS OF AUGUST 22, 1989)

Program Title	1	ASSET LANGUAGE SCORE										
	39	OR LO	WER	4	0 70	47	48	OR HI	GHER	· 	TOTALS	•
``````````````````````````````````````		CKLS	GPA	+ 	CHP%	I GPA	+ 	ICMP2	GPA	+ 		GPA
 			† · · · · · ·			HBAN	1		+	1	  MBAN	+
HORTICULTURE - LANDSCAPE HGT		†	<b>+</b>				<b>4</b>	<b>.</b>	1 -			
PRB-BUSINESS	30	82.2	1.551	¥   62	00.2   70.0	2   2.78	 	] 3/.l	1.57	6	70.3	1 2.33
ACCOUNTING	1 11	72.7	2.14	30	10.5   80 6	2.24	] 30 [ ]]	//.¶   07.7	1.69	123	79.4	1.74
BUSINESS MID-MANAGEMENT												
BANKING AND FINANCIAL SERVICES   MARKETING MANAGEMENT		, ,,,,,,	1 4.301	, , ,	83.6	1 1 98	l 67    1	10.0	2.03    2.21	/6	76.9	1.38
	1 7	85.81	1.58	131	A7.0	2.04		00 7	6.61   2.24	1 11	81.2	2.11
FASHION HERCHANDISING	1	100.0	3.63	101	63.0	2.12	121	00.7   100 ח	4.39    2.56	35	84.0	2.08
RETAIL MANAGEMENT	3	35.61	2.471	2 i	100 0	1 7 KNI	ור	E 0 1 1				
TRANSPORTATION & DISTRIBUTION		JV. V I	2.341	- 11	100.0	7 A.OO.				2.1		
ADMIN ASST-SECRETARIAL					1 11111 . 11	. / !!!!	41	81 A	2 A21	101 101	00./	2.88
LEGAL SECRETARY	1 .1	. 1	. i	11	83.1	2.38	101	87.31	2.027	14 j	00.3	2.34
INEDICAL SECRETARY	1 .1	.1	. i	2 j	75.0	2.47	71	92.31	2.63	•	03.1	2.53  2.59
IADMIN ASST-INFO PROCESSING	1 41	94.2	2.62	12	92.7	3.01	71	92.61	3.341	23	00.31	2.33
BUSINESS DATA PROCESSING	71	64.5	2.10			2.68		83.31	2.361	35	76.71	3.01
COMPUTER INFORMATION SYSTEMS			.1	31	91.7	2.271	21	83.31	2.251	331	10.31	2 261
HOTEL/HOTEL MANAGEMENT	1	42.91	4 + 0 3	JI	30.11	3.231	111	100.01	3.811	51	97.51	3 071
LEGAL ASSISTANT	1 11	81.2	2.15	51	73.71	2.061	111	84.51	2.93	171	81.2	2.011
MARKETING COMMUNICATIONS	1 21	87.51	0.84	3	86.1	2.10	•		3.16	•	89.2	2.03
MENT FOIVIE	1 21	66.71	2.171	311	00 01	2 491	211	00 01	1 071	n i		
NATERIALS MANAGEMENT	1 1   1	00.01	2.75	11	50.01	2.86	1 1	00.01	3.501	31	83.31	3 041
SUPERVISORS MANAGEMENT PRE-GRAPHICS	. •1	30.01	3.001	• 1	!	• 1	2   1	00.01	3.70	3	83.31	3.021
CONHERCIAL ART	71	71.4	2.36		10.08	1.12	4/1	00.0	2.741	21	80.91	1 84
PHOTOGRAPHY		78.2				2.36		74.3		691	79.7	2.371
PRINTING & PUBLISHING-OPERATIONS		50.0				2.09	12	76.9	2.09	301	74.8	2.001
VISUAL COMMUNICATIONS/VIDEO		89.7		10  1	88.7	2.35		B <b>8</b> .9		221	88.9	2.541
PRE-HOME ECONOMICS		00.0		2 10	0.01	1.32	1/10	00.01	2.54		00.01	
DIBTETIC TECHNICIAN	)   1114	75.1  2	2.25			2.81	11  7	79.5	2.43	26   8	31.8	2.54
INTERIOR DESIGN		0.01 2		.!				11.2		31 9	4.1	2.88j
CHILD CARE AND DEVELOPMENT		94.1] 3	-			2.01		37.8			12.6	
SHVIRONMENTAL SERVICES MANAGEMENT	.				2.0				3.89	9   6	5.21 2	.921
RE-HEALTH		0.0  1 7.7  2	_		0.01		1 10	0.0; 3	3.25	4   10	0.01 2	.50
TRE SCIENCE	.			130  8			85  8	9.9  2	:.52	264 8	3.71 2	.24]
OLICE SCIENCE		.  4.2  2			0.0			1.0  2			4.6  2	
NVIRONMENTAL & POLLUTION CONTROL	.			35  8				2.6  2		771 9	0.71 2	.121
EGISTERED NURSING	•	.  0.0  3	.   .					0.0  3		1 10		
ESTAURANT AND HOTEL COOKERY	4 1 0	6.71 2	201		5.4  2			5.71 2			1.6  2	
EDICAL LABORATORY TECHNOLOGY		0.71 2		14   81				1.4  3			0.71 2	
CCUPATIONAL THERAPY ASSISTANT		2.9   2.			2.9  0			0.0  3			0.71 2	
ISPIRATORY THERAPY		).0  0.			3.7  2			1.2  2		15   93		
UMAN SERVICE ASSOCIATE		1.2  2.			.0  3			0.01 2.			1.31 2.	
YSICAL THERAPIST ASSISTANT	.	1,6  4, 		40  80		:	27  80			781 82		
DIOGRAPHY	- :			.	.	.		.0 j.		1/100		
B-SERVICE	•	.0  0.	.   nn i	3 100				.5  2.			.6  2.	
E-TECH	26   93			8  67				.91 2.	•	13  73	.6] 1.	36
R COND AND REFRIGERATION TECH		.7  2.		52  79			29   84		•	07  84	.41 2.	07
ENICAL TECHNOLOGY		.0  3.		4 100				.3  2.		10  90		
		.v  J.	 	.	.	•	1 100	.0 3.	08 [	2 100	.0; 3.	33



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## Table 6 (Continued)

AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-TESTED IN 1938/89 WITHIN ASSET LANGUAGE SCORE GROUPS BY PROGRAM (AS OF AUGUST 22, 1989)

NDUSTRIAL BLECTRONICS OMNUMICATIONS OMPUTER SCIENCE IOMBDICAL BLECTRONICS LECTRONIC SYSTEMS TECHNICIAN ECHANICAL DESIGN TECHNICIAN TRUCTURAL TECHNICIAN	   	CHP% 	HBAN		TO 41			OR HIGH	+		TOTALS	
OMNUNICATIONS OMPUTER SCIENCE IOMEDICAL BLECTRONICS LECTRONIC STSTEMS TECHNICIAN ECHANICAL DESIGN TECHNICIAN	; N ; N	MEAN	HBAN			GPA I		CHPE	י ו ייחי ו		laun:	
OMNUNICATIONS OMPUTER SCIENCE IOMEDICAL BLECTRONICS LECTRONIC STSTEMS TECHNICIAN ECHANICAL DESIGN TECHNICIAN	; ; ; ;	MEAN	MEAN	•		:			•			GFA
OMNUNICATIONS OMPUTER SCIENCE IOMEDICAL BLECTRONICS LECTRONIC STSTEMS TECHNICIAN ECHANICAL DESIGN TECHNICIAN		1100 0		•	MBAN	HEAN	N	MEAN	HEAN !		  MEAN	HEAN
OMPUTER SCIENCE IONEDICAL BLECTRONICS LECTRONIC SYSTEMS TECHNICIAN ECHANICAL DESIGN TECHNICIAN	1	•	3.21	6	50.û	2.22	4	63.3	2.37	11	54	2.37
IONEDICAL BLECTRONICS LECTRONIC SYSTEMS TECHNICIAN ECHANICAL DESIGN TECHNICIAN		100.0	2.73	•		1.48			3.82		100.0	
LECTRONIC STSTEMS TECHNICIAN ECHANICAL DESIGN TECHNICIAN				•	•	2.92			2.65		90.0	•
ECHANICAL DESIGN TECHNICIAN	•	•	3.58	•		2.00		•	3.23		82.2	•
			١.		•	3.04		•	2.08		•	
TRUCTURAL TECHNICIAN	•	•	1.94	•		2.84			2.93		76.5	•
		•		•	•	2.34		•			78.8	•
UBLIC WORKS TECHNICIAN				•	•	3.36		:	3.00		100.0	
LECTRONIC DESIGN AND PACKAGING		•		-	•	2.70		-	• .		71.4	
ETALLURGICAL TECHNOLOGY	•	•	j 3.10	•	•	3.05			3.10		60.3	•
RCHITECTURAL TECHNOLOGY	•	•	2.78			1.90			2.28		•	
LASTICS TECHNICIAN	2	15.0	2.75	•	,			•			75.0	-
UTONATED MANUFACTURING TECHNOLGY	1	100.0	1 2.50	•	•	3.28			1.52			
elding technology	1	1100.0	3.14	•	-	3.05	1	100.0	3.30	3	100.0	3.1
NDUSTRIAL ENGINEBRING TECHNICIAN				•	•	1.88			3.42			
OMPUTERIZED HACHINING TECHNICIAN	.		١.	1	100.0	3.05		•	2.78		91.7	Ι.
RB-TELECASTING	1 1	100.9	2.25	9	77.8	2.0B		•	2.00		81.	
BLBCASTING	1	75.0	2.50	5	68.8	2.11		•	1.96		71.9	•
CCUPATIONAL MUSIC	1 2	83.3	2.73	6	83.5	2.11	5	81.4	2,72	13	82.7	2.
ROSSOVER FRE-HEALTH	9	51.7	1.75	19	79.3	1.86	15	85.3	2.44	43	75.6	2.0
ROSSOYER	321	77.8	1.65	168	82.3	1.79	21	82.2	1.47		79.5	•
IBBRAL ARTS	49	81.2	1.98	152		1.95			2.36		78.6	
MALL BUSINESS TRAINING PROGRAH	1	82.4	3.71			ا. ا		١.	ا . ا	1	82.4	3.
UTAMATED BUSINESS SUPPORT SPEC		100.0	3.36	3	100.0	2.58	3	94.4	3.23		98.3	
ATA ENTRY		.	.	1	81.2	2.29			.	1	81.2	! 2.
RAVEL INDUSTRY (AGENT) TRAINING	5	100.0	2.97	10	70.2	2.21	18	94.4	3.291	39	85.2	2.1
NDUSTRIAL SEWING OPERATOR TRNG	1 18	1 59.2	1.18	.	.	.			.	18	59.2	1.
NEANT/TODDLER CARE SERVICES		1100.0	1.99	1	100.0	3.93	2	[100.0]	1.13	4	100.0	3.
IR COND REF & HTG			3.00			1.67			3.54		98.5	2.
URSING ASSISTANT			1.75		100.0	1.83	1	100.0	4.90	10	92.3	2.
	i :	100.0	2.50	6	100.0	3.55	5	80.0	2.84	13	92.3	: 3.
ORTICULTURE			1.57	-	100.0	2.00		.		2	100.0	1.
ORD PROC. SPECIALIST		•	2.65	•	94.4	2.46	8	79.6	1 3.60	17	82.0	j 3.
LERK-TYPIST	! 20	74.8	1.26	18	64.5	1.23	1	100.0	0.001	39	1 70.7	11.
RINTING	•	•	2.04	•		3.26		100.0	3.35		87.5	1 2.
LTERATIONIST	,		3.20	•	j .					5	100.0	3.
OCD PREPARATION ASSISTANT		•	1.83			2.47		١.	i .i	8	1 78.9	1 2.
ETAIL BAKERY PRODUCTION	•	•	2.60	-		1.87					80.7	2.
NTERIOR DESIGN ASSISTANT				•	•			•	3.17		74.4	
HILD CARE SERVICES	•	-	0.00			2.71		•	3.23		100.0	12.
IRERAME AVIATION MECHANIC			•						2.95		1100.6	
OWERPLANT AVIATION MECHANIC		•		•	•	2.51			ا، ا		56.5	•
UTOMOBILE BODY SERVICING			3.03	•		3.39			2.951		100.0	-
UTOMOBILE SERVICING			1.44	•	•	2.27		•	2.36		92.4	
RICKLAYING AND HASONEY				•	•	3.04					100.0	
ABINETHAKING & MILLWORK	1 11	1 97 5	2.78	, ,	1100.0	2.90			3,19		38.	
ARPENTRY												

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## Table 6 (Continue)

AVERAGES OF CREDIT COMPLETION PCT AND GRADE POINT AVERAGE OF STUDENTS ASSET-TESTED IN 1988/89 WITHIN ASSET LANGUAGE SCORE GROUPS BY PROGRAM (AS OF AUGUST 22, 1989)

Program Title		ASSET LANGUAGE SCORE								<u>}</u>		
	39	OR LO	WER	4	0 TO 4	7	48	OR HIG	HER	 	TOTALS	
			GPA			GPA	,	•	GPA	•	CMP%	
		•	HEAN	N	MEAN		H	MEAN	MEAN	l N	•	MEAN
COMBUSTION ENGINES SERVICING	5	J 80.G	2.23						1 2.68		87.4	
ELECTRICITY			2.24		-			100.0	3.63	15	96.4	2.41
ELECTRICITY   HYDRAULICS-PHEUMATICS   MAGNITHM TOOL OPERATIONS			0.31			1.75		-	3.50	•	*	•
SUCULAR INAT ALBUATANS			2.61			1.72		•	3.13	•	87.9	-
AUTOMATIC SCREW MACHINE OPERATOR		•	1.88		•				1	•	75.7	•
			2.91			2.99			2.75		94.7	•
		•	1.17		•	3.06				•	90.9	•
			2.14			3.44					95.0	
JEWELRY SERVICES & SALES	15	30.1   08.7	2,41    1 06	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1.17			3.96			•
WELDING COMP. HUMERICAL CONTROL MACH/OPK	1.7	33.4   100 0	1 5 55    1.00	3 (		1.1/			1.40		96.2	
APPLIANCE SERVICING	1.0	100.0   100.0	3.47	1	•	2.26			3.19			
*******									112			
INDUSTRIAL PLASTIC	21	100.0	3.29	21	100.0	3.05					100.0	
BARBER/CGSMETOLOGY	11	97.9	2.87	18	89.8	3.26	10		2.53	•	91.1	•
DENTAL ASSISTANT	11	100.0	3.73	31	100.0	3.441	4		3.52			
MEDICAL ASSISTANT	1	76.5	1.70	3	98.0	2.70	4		2.54			
PRACTICAL NURSING	71	89.1	1.81	11	91.6	2.54	61		2.51		89.9	
SURGICAL TECHNICIAN	1	100.0	2.00	7	94.9	2.34	5		3.66	•	95.3	
SHALL ENGINE AND CHASSIS MECHANIC   INDUSTRIAL PLASTIC   BARBER/COSMETOLOGY   DENTAL ASSISTANT   MEDICAL ASSISTANT   PRACTICAL NURSING   SURGICAL TECHNICIAN   PHARMACY TECHNICIAN   TAILOR   ELECTRONICS SERVICING	ï	0.0	2.00	6	94.4	2.45	5		3.31			•
TAILOR	1	100.0	1.95				ij	100.0	4.00	2		
REACTRONICS SERVICING	1	13.3	0.00	1	100.0	3.78	1	100.0	3.22	31	71.1	
TOOL AND DIE MAKING	2	62.5	2.79	2	100.0	3.52	1		2.50		85.0	3.02
TAILOR  #LGCTRONICS SERVICING  TOOL AND DIE MAKING  HOROLOGY (WATCHMAKING)  ALL PROGRAMS	.1	.1	.1	1	0.0	2.42			ا، ا	1	0.0	2.42
ALL PROGRAMS	882	81.3	1.93	1213	82.6	2.13	839	84.5	2.51	2934	82.8	2.18



### E. RECOMMENDATIONS

- 1. ASSET scores may be used for placement in English or mathematics courses, but cannot be used for predicting grade point averages.

  ASSET test scores are not predictive of GPA for any minority group.
- 2. Students withdrew largely for personal reasons, such as illness, family problems, etc. If withdrawing students do not see a counselor or teacher advisor prior to leaving, every effort should be made to contact the student to see if assistance can be given.
- 3. Students did not return to MATC between semesters mostly due to financial reasons. Because it is not known that a student is not returning until the start of the next semester, it is difficult to contact them in time to assist them in enrolling. The Leaver Study procedure of sending a questionnaire to nonreturning students could be used also to provide information on financial aid and MATC contact people.
- 4. Nonreturnees tended to be less knowledgeable about services available or used services the least. Academic, Financial, and Student Services should be more widely advertised and made available.
- 5. Services of MATC Counseling, Placement, and Multicultural Affairs were not utilized by a majority of students. The sample sizes were small so these results must be verified with larger samples in the second year of the study. The office of Multicultural Affairs is perhaps too narrow in its focus on minority students. There were as many White students withdrawing and nonreturning as minority students. The emphasis should be on disadvantaged students of all ethnic groups. Specialists from this office should be more active in the community and work with special funded educational projects.
- 6. MATC counselors are sometimes criticized of directing minorities and women into low paying occupations. As shown in this study, about 95% of MATC students, both males and females from all ethnic groups, are very sure (about 65%) or fairly sure (about 30%) of both their program of choice and career choice before they enroll at MATC. This is true of both preleavers and enrollees. Students who indicated that they were not sure (about 5%) and perhaps some of the fairly sure should be required to seek advise from counselors.
- 7 Second expansion of faculty advising should be continued.
  Fig. 1 were the most influential in assisting students. Students have indicated they were satisfied with the quality and availability of MATC faculty. Student Survey results for ten years have indicated that a majority of students have rated these items as excellent or good. Faculty should be recognized when they do an exemplary job of advising students.
- 8. Preleavers (students who took the ASSET test after being admitted and never enrolled) were not different in characteristics from enrollees. The only large difference found between preleavers and enrollees was that a higher percentage of preleavers (about 12%) were high school students at the time they took the ASSET tests. Special attention in



- terms of providing information and contact people should be given to prospective students who are still enrolled in a high school program.
- 9. Multistage survey procedures that combine several mailings as well as personal and phone interviews should be used when possible, in order to increase the survey return rates of informally withdrawing students and nonreturnees. Institutional assessment data from graduating, transferring, and withdrawing students should be gathered at times when these students apply for the corresponding graduation, transcript to be sent, or complete course withdrawal service



### REFERENCES

- Adelman, S. I., Ewell, P. T. & Grable, J. R. (1989). LONESTAR: Texas's voluntary tracking and developmental education evaluation system. In Trudy H. Bers (Ed.) Using Student Tracking System Effectively. New Directions for Community Colleges no. 66. San Francisco, CA: Jossey Bass.
- Bean, J. P. (1982). Conceptual models of student attrition: how theory can help the institutional researcher. In E. R. Pascarella (Ed.) Studying Student Attrition. New Directions for Institutional Research no. 36. San Francisco, CA: Jossey-Bass.
- Bean, J. P. (1979). Path analysis: the development of a suitable methodology for the study of student attrition. Paper presented at the annual meeting of the American Educational Research Association. San Francisco (April).
- Department of Research, Planning, & Development. (1989). Fact book. January, 1989. Milwaukee, WI: Milwaukee Area Technical College.
- Department of Research, Planning, & Development. (1988a). Basic skills student tracking control group 1 semester 1, 1986/87, four semesters later: semester 1, 1988-89 (preliminary draft). Milwaukee, WI: Milwaukee Area Technical College.
- Department of Research, Planning, & Development. (1988b). MATC student retention program grade distribution by course, semesters 1 & 2 1985-86, 1986-87, and 1987-88. Milwaukee, WI: Milwaukee Area Technical College.
- Doan, H. M. et al. (1986). Student retention: a longitudinal study tracking first-time students at an urban multi-campus community college. Paper presented at the Annual Forum of the Association for Institutional Research (Orlando, FL, June 21-25). (ERIC Document Reproduction Service No. ED 278 431).
- Ewell, P. T. (1985). Recruitment, retention and flow: a comprehensive approach to enrollment management research. NCHEMS Monograph #7.
  Boulder, CO: National Center for Higher Education Management Systems.
- Fowler, F. J. (1984). Survey research methods. Applied Social Research Methods Series, Vol. 1. Beverly Hills: Sage.
- Friedlander, J. (1981). Why students drop courses. Junior College Resource Review. (Jan.) (ERIC Document Reproduction Service No. ED 196 505).
- Keim, H. D. (1982). A model for determining student attrition. Occupational education research project. Final report. North Carolina State Dept.t of Community Colleges. (ERIC Document Reproduction Service No. ED 222 210).

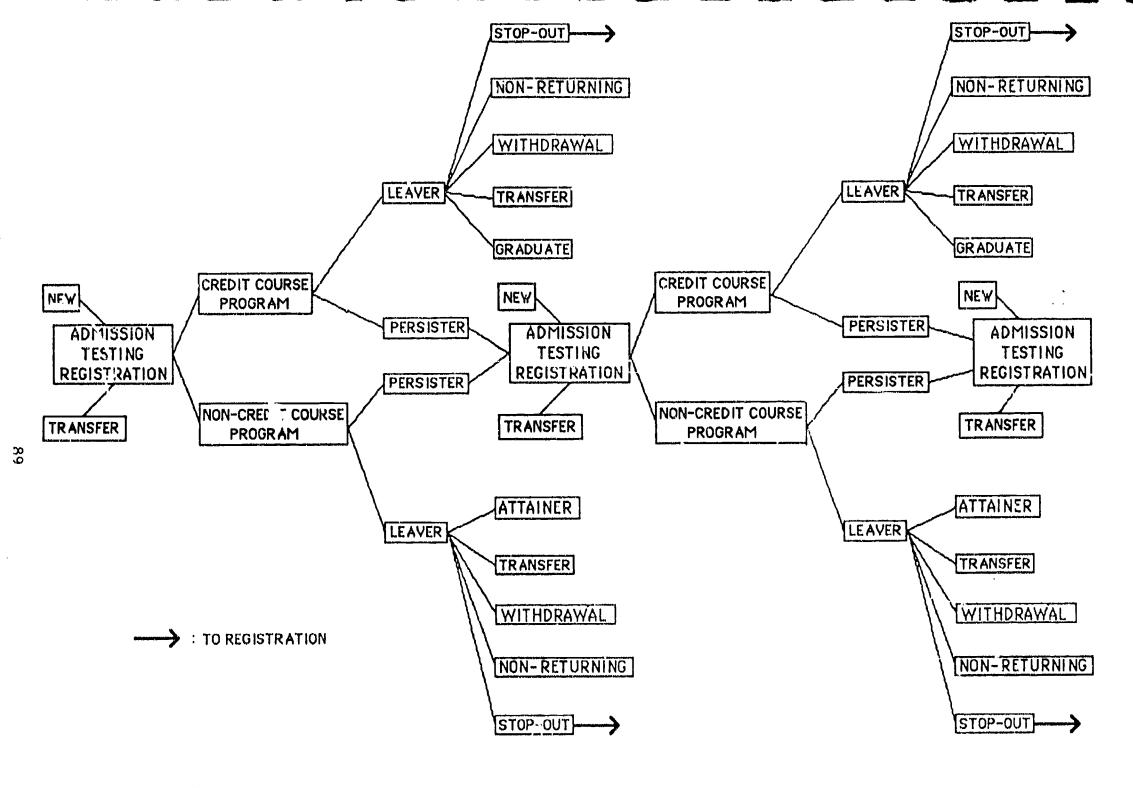


- Lenning, O. T. (1982) Variable-selection and measurement concerns. In E. R. Pascarella (Ed.) Studying Student Attrition. San Francisco, CA: Jossey-Bass.
- Lenning, O. T., Beal, P. E., & Sauer, K. (1980). Retention and attrition: evidence for action and research. Boulder, CO: National Center for Higher Education Management Systems.
- Nebraska Coordinating Commission for Postsecondary Education. (1978).
  Attrition in the state of Nebraska. Recommendations for a statewide study of student attrition among Nebraska postsecondary educational institutions: issues, goals, research design, timetable and cost estimate. Lincoln, NE. (ERIC Document Reproduction Service No. ED 160 015).
- Pascarella, E. (1980). Student-faculty informal contact and college outcomes. Academy of Management Journal, 24, 543-565.
- Phillips, J. (1982). Student attrition at the community college: the need for conceptual clarification. Paper presented at the Annual Meeting of the Educational Research Association (New York, NY, March 19-23). (ERIC Document Reproduction Service No. ED 214 609).
- Rootman, I. (1972). Voluntary withdrawal from a total adult socialization organization: a model. Sociology of Education, 45, 258-270.
- Sheldon, J. (1983). Retention and attrition of students: a status report on institutional issues and implications. Frederick, MD: Frederick Community College. (ERIC Document Reproduction Service No. ED 246 930).
- Schiltz, M. E. (1988). Professional standards for survey research. Research in Higher Education, 38 (1), 67-75.
- Spady, W. (1970). Dropouts from higher education: toward an empirical model. Interchange, 2, 38-62.
- Terenzini, P. T. (1987). Studying student attrition and retention. In J. A. Muffo & G. W. McLaughlin (Eds.) A Primer on Institutional Research. San Francisco, CA: Jossey-Bass.
- Terenzini, P. T. (1982). Designing attrition studies. In E. R. Pascarella (Ed.) Studying Student Astrition. San Francisco, CA: Jossey-Bass.
- Tinto, V. (1975). Dropout from higher education: a theoretical synthesis of recent research. Review of Educational Research, 45, 89-125.
- Voorhees, R. (1986). Toward building models of community college persistence: a log-linear analysis. Paper presented at the Annual Forum of the Association for Institutional Research (26th Orlando, FL June 22-25). (ERIC Document Reproduction Service No. ED 280 428).
- Walleri, R. D. (1981). Student retention and attrition in the community college: a review and research design. (ERIC Document Reproduction Service No. ED 210 064).



# **APPENDIX A**





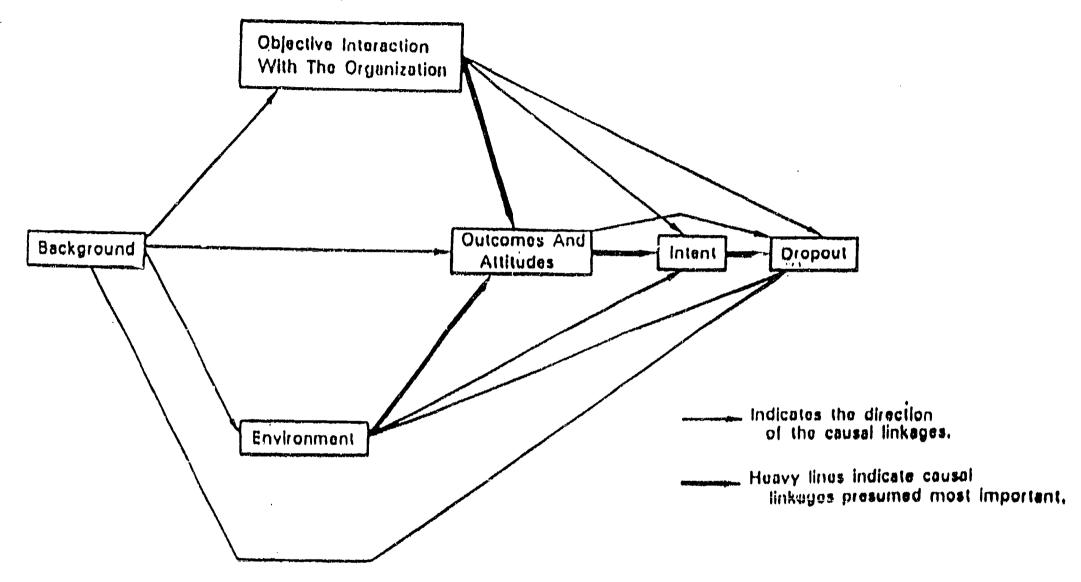
MATC STUDENT'S PROGRESS FLOW CHART



# **APPENDIX B**



## A Synthetic Causal Model of Student Attrition



Source: Bean, J. (1982). Conceptual model of student attrition:
 how theory can help the institutional researcher. In
 Ernest T. Pascarella (Ed.) Studying Student Attrition,
 Vol IX (4), New Directions for Institutional Research
 Series. San Francisco: Jossey-Bass.



# **APPENDIX C**



### SAL DATABASE ELEMENT CATEGORIES

## **DEMOGRAPHICS (Social and Economic Status)**

### Student Identification

- Social Security Number
- Confidential Code

### Name

- Last
- First
- · Middle Initial

#### Local Address

- Street
- City
- State
- Zip

### County

### Telephone

- Home
- Work

Date of Birth

Years of Age

Citizenship

Gender

Ethnic Background

**Marital Status** 

Financial Aid Sponsor

### Contact Person

- Name
- Address
- Phone
- Relationship

#### Veteran

### **Employment Information**

- Job Title
- Employer's Name
- Employer's Address
- Working Hours per Week
- Wages/Salary
- MATC Training & Job relationship
- First Term Employment Hours
- Next Term Employment Hours
- Next Term Employment Plans
- Future Employment Plans

### Tuition Reimbursement by Employer

### Help needed

- Financial
- Employment
- Counseling
- · Learning Skills
- Health
- Disability
- · Child Care
- Personal Concerns

English 1st Language

Physical Disability

### PERSONAL (Opinions, Reasons)

### Attending MATC

- 7 Reasons
- · Most Important Reason

### Leaving MATC

- 17 Reasons
- Most Important Reason

### Transferring to Other College

- 15 Reasons
- Most Important Reason
- 15 Selection Factors
- Most Important Selection Factor

### MATC Training Relevance to

- · Career Goals
- Job Hunting
- Job Performance
- Job Enrichment
- Job Advancement
- Educational Goals
- Professional Development
- · Personal Growth
- · Personal Enjoyment



## INSTITUTIONAL (Institutional Factors, Student Services)

#### Institutional Factors

- · Admission Requirements
- Testing Procedures
- · Registration Process
- Fee Payment & Billing
- Classroom Facilities
- Laboratory/Shop Facilities
- Athletic Facilities
- · Personal Study Areas
- Racial Harmony Climate
- Overall MATC's Climate
- Instructors' Attitudes Toward Students
- Staff's Attitudes Toward Students
- Policy-Making Involvement
- Cultural Activities Participation
- Sport Activities Participation
- Instructors' Grading Practices
- · Instructors' Out-of-Class Availability
- Counselors' Availability
- Overall Quality of Instruction
- Major Curriculum Content
- Class Size
- Course Variety
- · Course Selection Flexibility
- · Relevance of Training to Employment
- Catalog/Publications Accuracy
- · Academic Calendar
- · Student's Conduct Code
- Academic Probation/Suspension Policies
- Financial Aid Availability

### Support Services

- Admission
- Registration
- Testing
- · Career Planning
- College Orientation
- Guidance
- Counseling
- · Academic Advising
- Tutoring
- Athletics
- Cuitural Programs
- Academic Support Center
- Financial Aid
- Family & Women's Resource Center
- Business Office
- Hearing/Learning/Visually Impaired
- Student Senate
- Student Organizations
- Veteran Services
- Child Care
- Student Center
- Bookstore
- Library
- Campus Employment
- Health Services
- Cafeteria

# ACADEMIC (Educational Planning, Educational Background, Learning Outcomes)

### High School

- Name of Last Attended
- GPA
- Certificate Type

### Highest Schooling Year

### Postsecondary Experience

- · Earned Credits
- Highest Degree

### First Term Enrollment Plans

- Credit Hours
- Grade Expectations
- Term
- Time

### First Term Enrollment

- Credit Attempted
- Credits Completed
- · Enrollment Status
- Academic Status
- Term
- Time

### Current Term Enrollment

- Credits Attempted
- Credits Completed
- Academic Status
- Enrollment Status
- Term Tracking Time
- Attending Time
- Course Type

### Enrollment Plans

- Next Term
- Future

### Career Goal

### Educational Plans

- Major
- · Amount of Education
- How Sure?

### Campus Location

- Program
- Attendance

### Educational @oal at MATC

- 4 Options (ASSET)
- 8 Options (Local)

### Goal Completion Status

- Continuing
- Graduate
- Attainer
- Transfer
- Withdrawing
- NonreturningStop Out

### Total Credits

- Attempted
- Completed

Credit Completion Rate

Average Course Load



- · International Students
- Job Placement
- Campus Security
- Housing
- Multicultural Affairs
- Student Newspaper
- Information

### **GPA**

- Term
- Total

### Program

### Transfer Plans

- 5 Options
- Institution Code
- Institution Name

### ASSET Test Scores

- Numerical
- Reading
- Language

### Cohort

- Year
- Term

### Withdrawal Date

- Month
- Day
- Year

### **Graduation Date**

- Expected
- Effective

### Institutional Transfer

- Transcript Request Date
- Institution Type
- First Choice Name
- Second Choice Name
- Transfer Status



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# **APPENDIX D**



#### Milwaukee Area Technical College WITHDRAWING STUDENT QUESTIONNAIRE Dear MATC student: We value your opinion. Please, take a few minutes to answer the following questions. This Information will be treated with strict confidentiality and will be used only for the improvement of MATC programs and services. Your cooperation is highly appreciated. 1. CURRENT EMPLOYMENT INFORMATION (PLEASE PRINT. IF NOT EMPLOYED, SKIP THIS QUESTION). Working hours per week (check one box Wonly). □ 1 · 10 □ 11 - 15 □ 16-20 D 21 - 30 31 or more MATC training related to job (check one box Monly). ☐ Very much ☐ Somewhat ☐ Not at all REASONS FOR LEAVING MATC (CHECK L'ALL THE REASONS THAT APPLY TO YOUR SITUATION). ☐ Changes in my educational plan/goals ☐ Financial problems ☐ Job conflict ☐ Found a job related to my MATC training ☐ Course unrelated to my needs ☐ Transportation to MATC problems Found a job unrelated to my MATC training ☐ Course scheduling inconvenient ☐ Moving to a new location ☐ Personal/lamily illness or injury Course grade problems ☐ Child care problems C Other personal/tamily cause Dissatisfaction with instructional quality ☐ Lost interest in courses D Plan to attend another college Other reason (Specify) IF MORE THAN ONE REASON WAS CHECKED IN QUESTION 2 ABOVE, CIRCLE THERE THE CHECKED BOX MCORRESPONDING TO YOUR MOST IMPORTANT REASON FOR LEAVING MATC. FUTURE EDUCATIONAL PLANS (CHECK ONE BOX MONLY). D Enroll at MATC in I semester Enroll at another college Ouit school forever D Return to MATC after next semester Stop studying for a while C Other (Specify) FOR EVERY LISTED MATC ASPECT BELOW CHECK THE APPROPRIATE BOX, ACCORDING TO YOUR OWN



EXPERIENCE

EXPERIENCE Very satisfied Very Satisfied Satisfied Satisfied Dissatisfied Unsatisfied Do not know Do Not Know Instructors' grading practices Admission requirements ō Instructors' out-of-class availability Testing procedures Counselors' availability Registration process Overall quality of instruction Fee payment and billing 12 Classroom facilities Curriculum content in major area of study Class size in major area of saidy Laboratory/shop facilities ()Course variety in major area of study Athletic facilities  $\bar{\Box}$ (1) Personal study areas Course selection flexibility Relevance of MATC training to employment Racial harmony climate Accuracy of MATC catalog/publications Overall MATC climate Academic calendar Instructors' attitudes toward students Noninstructional Staff's Attitude to Stud. $\square$ Student's conduct code Student involversiont in MATC's poncymaking Academic Probation/suspension policies []Financial aid availability Student participation in cultural activities Student participation in sports activities (Specify) FOR EVERY LISTED MATC SERVICE BELOW CHECK THE APPROPRIATE BOX, ACCORDING TO YOUR KNOWLEDGE AND USAGE OF THE SERVICE. Used the service and was Satisfied by it Used the service and was satisfied with it the service and was not satisfied with it Knew about the service but did not use it. Knew about the service but did not use Dis not know about the service Did not know about the service Veteran Services Admission Child Care Registration Student Center Testing Bookstone Career Planning Library College Orientation Campus Employment Couldance / Counseling Health Services Academic Advising Caleteria Lutoring Athletics International Students Job Placement (1) Cultural Programs Campus Security [] Financial Aid [ ] ( ) Housing Family and Women's Resource Center Multicultural Affairs Business Office Student Newspaper Hearing/Learning/Visually Impaired Other Student Senate/Organizations (Specify)

## Milwaukee Area Technical College TRANSFERRING STUDENT SURVEY

Dear MATC transferring student: Please, take a few minutes to answer the following questions. This information will be treated with strict confidentiality and will be used only for the improvement of MATC programs and services. Your cooperation is highly appreciated.

	<del></del>		
1.	CURRENT "MPLOYMENT INFORMA	ATION (PLEASE PRINT. IF NOT EMPL	OYED, SKIP THIS QUESTION).
	Working hours per week (check one box 5		•
		•	
	MATC training related to job (check one bo	ox only). Uvery much Somewh	at 🗆 Not at all
2.	NAME OF INSTITUTION TRANSFER	PING TO <i>(PLEASE PRINT).</i>	·
	Eight chaire	Conned aboing	
	First choice	Second choice	ent de la companya de la companya de la companya de la companya de la companya de la companya de la companya d La companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya del companya de la companya de la companya de la companya de la companya de la companya del companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya del la companya del la companya del la companya de la companya de la companya de la companya de la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya del la companya
3.	REASONS FOR TRANSFERRING (	CHECK WALL THE REASONS TH	_
	☐ Study toward an advanced degree	Completed my current program of study	☐ Study toward a degree in a different field
	☐ Financial problems	☐ Job conflict	☐ Transportation to MATC problems
	Course scheduling inconvenient	☐ Moving to a new location	☐ Personal concerns
	☐ Course grade problems ☐ Dissatisfaction with instructional quality	☐ Child care problems ☐ Professional advancement opportunities	☐ Other personal/family caus ☐ Other reason
	is dissaustaction with instructional quarty	Professional advancement opportunities	(Specify)
			(
4.		NE REASON IN QUESTION 3 ABOVE,	
	©CORRESPONDING TO YOUR MC	<u>DST IMPORTANT REASON</u> FOR TRAN	SFERRING TO OTHER INSTITUTION.
5.	FACTORS INFLUENCING SELECTIO	N OF COLLEGE TRANSFERRING TO (	CHECK WALL THE FACTORS THAT
•	APPLY TO YOUR SITUATION).	14 OF COLLEGE TRANSPERIMENTS TO (	ONEON I ALE INE LACTORS INAT
	·	Cl Catavana to anno and	
	☐ Quality of educational programs ☐ Quality of instruction/research	☐ Relevance to career goals ☐ Financial concerns	Professional advancement opportunities
	Personal interests	_	☐ Relevance to present job☐ Personal referrals
	☐ Institution prestige	☐ Classroom/laboratory facilities☐ Location	☐ Quality of noninstructional services
	☐ Student body composition/size	☐ Quality of campus life	Other
	a Galdem body composition size	a dramy or campus me	(Specify)
	P. (Marie Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of Control of C		
6.	IE VOU CHECKED MODE THAN ON	IE EACTOR IN OUESTION & AROUS	CIRCLE THERE THE CHECKER BOY
O.	CORRECTONDING TO THE LACE	NE FACTOR IN QUESTION 5 ABOVE.	CANOTHER INCIDENCE THE CHECKED BOX
	CORRESPONDING TO THE MOS	T IMPORTANT FACTOR IN SELECTIN	G AND THER INSTITUTION.
7.	HIGHEST LEVEL OF EDUCATION PL	ANNED (CHECK ONE BOX MONLY).	
	☐ Classes only, no degree/certificate	☐ Certificate	[] One-year/two-year diploma
	Associate degree	☐ Four-year degree	☐ Master's degree
	Doctorate /professional decree	Cour-year degree	wiaster's degree

OVER, PLEASE
(MORE QUESTIONS ON THE OTHER SIDE)

(Specify)



<u> </u>		
8.	CHECK THE APPROPRIATE BOX, ACCORDING TO PERSONAL/PROFESSIONAL ASPECT LISTED BELOW.	HOW IMPORTANT YOUR MATC TRAINING IS FOR EVERY
	Very important	Very important
	Important	Important
	Not important	Not important
	Not applicable	Not applicable
	<b>1 1 1 1</b>	1 1 1
!	Career goals	D    D    Educational goals     D    D    Professional development
	Career goals     Job hunting     Job performance     Job enrichment     Job advancement	□ □ □ Personal growth
i	Job enrichment     Job advancement	
<u> </u>		(Specify)
9.	FOR EVERY LISTED MATC ASPECT BELOW CHECK	THE APPROPRIATE BOX, ACCORDING TO YOUR OWN
	EXPERIENCE.	
	Very satisfied	Very satisfied
	Satisfied	Satisfied
	Dissatisfied	Dissatisfied
	Do not know	Do not know
	Admission requirements	
	□ □ □ □ Testing procedures	☐ ☐ ☐ Instructors' out-of-class availability
	Registration process Fee payment and billing	Counselors' availability Counselors' availability Counselors' availability
ł	Classroom facilities Laboratory/shop facilities	Curriculum content in major area of study Class size in major area of study Course variety in major area of study Course selection flexibility Relevance of MATC training to employment
	Laboratory/shop facilities Athletic facilities	Class size in major area of study Course variety in major area of study Course selection flexibility
	Personal study areas Racial harmony climate Operated MATC climate	Course selection flexibility  Course selection flexibility  Course selection flexibility  Course selection flexibility  Course selection flexibility  Course selection flexibility  Course selection flexibility
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	instructors' attitudes toward students  Noninstructional staff's attitudes toward students  Student involvement in MATC's policymaking	Students' conduct code  Code Code Code Code Code Code Code
}	□ □ □ □ Student participation in cultural activities	☐ ☐ ☐ Financial aid availability
	□ □ □ Student participation in sports activities	Other (Specify)
10.	FOR EVERY LISTED MATC SERVICE BELOW CHEC KNOWLEDGE AND USAGE OF THE SERVICE.	K THE APPROPRIATE BOX, ACCORDING TO YOUR
	THE SERVICE.	
	Used the service and was satisfied with it	Used the service and was satisfied with it
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١,	☐ ☐ ☐ Admission	☐ ☐ ☐ Veteran Services
	☐ ☐ ☐ Registration ☐ ☐ ☐ Testing	□ □ □ □ Child Care □ □ □ Student Center
	Career Planning	□ □ □ □ Bookstore
	College Orientation Guidance/Counseling	□ □ □ □ Library □ □ □ □ Campus Employment
	C C Academic Advising	□ □ □ Health Services □ □ □ Cafeteria
	□ □ □ Athletics	□ □ □ International Students
	Cultural Programs Financial Aid	☐ ☐ ☐ Job Placement ☐ ☐ ☐ Campus Security
	☐ ☐ ☐ Family and Women's Resource Center	□ □ □ Housing
	But iness Office Hearing/Learning/Visually Impaired	☐ ☐ ☐ Multicultural Affairs ☐ ☐ ☐ Student Newspaper
FR	Student Senate/Organizations	☐ ☐ ☐ Other (Specify)
Full Sout Provide	U STATE THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE	(эрвспу)

## Milwaukee Area Technical College SURVEY OF FORMER STUDENTS

Dear former MATC student: Please take a few minutes to onswer the following questions. This information will be treated with strict confidentiality and will be used only for the improvement of MATC programs and services. Your cooperation is highly approximated.

1.	CURRENT EMPLOYMENT INFORMATION (PLEASE	PRINT. IF NOT EMPLOYED, SKIP THIS QUESTION).
	Working hours per week (check one box ■ only). ☐ 1 - 10  MATC training related to job (check one box ■ only). ☐ V	ery much Somewhat Not at all
2.	☐ Changes in my educational plan/goals ☐ Found a job related to my MATC training ☐ Found a job unrelated to my MATC training ☐ Course uni ☐ Course sct ☐ Personal/lemily illness or injury ☐ Other personal/family cause ☐ Dissatisfac	related to my needs
3.	IF MORE THAN ONE REASON WAS CHECKED IN CONCESPONDING TO YOUR MOST IMPORTANT	DUESTION 2 ABOVE, CIRCLE THERE THE CHECKED BOX REASON FOR LEAVING MATC.
4.		At another college
5.	FOR EVERY LISTED MATC ASPECT BELOW CHECK EXPERIENCE.    Very satisfied	Very satisfied   Dissutisfied   Do not know
6.	KNOWLEDGE AND USAGE OF THE SERVICE.	THE APPROPRIATE BOX, ACCORDING TO YOUR
	Used the service and was satisfied with it  Used the service but was not satisfied with it  Knew about the service but did not use it  Did not know about the service	Used the service and was satisfied with it  Used the service but was not satisfied with it  Knew about the service but did not use it  Did not know about the service
	Admission Registration DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD	Composition   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Continue   Contin



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## Milwaukee Area Technical College GRADUATING STUDENT SURVEY

Dear MATC graduating student: Please, take a few minutes to answer the following questions. This information will be treated with strict confidentiality and will be used only for the improvement of MATC programs and services. Your coop-ration is highly appreciated.

٦.			LOYED, SKIP THIS QUESTION).
	Working hours per week (check one box only).	□ 1-10 □ 11-15 □ 16	6-20 🗆 21-30 🗆 31 or more
	MATC training related to job (check one box onl)	y).   Very much   Somew	hat 🗆 Not at all
2.	FUTURE EMPLOYMENT PLANS (CHECK C	ONE BOX MONLY)	
<b>5</b> 01	☐ Continue working in my current job/business ☐ Start my own business	☐ Just obtained a new job☐ No employment plans so far	☐ Currently looking for a job☐ Other
			(Specify)
3.	FUTURE EDUCATIONAL PLANS (CHECK	ONE BOX YONLY).	
	☐ Enroll at MATC next semester	☐ Enroll at another college	☐ Quit school forever
	☐ Return to MATC after next semester	☐ Stop studying for a while	Other
			(Specify)
4.	CHECK THE APPROPRIATE BOX, ACCORDERSONAL/PROFESSIONAL ASPECT LIST	ORDING TO HOW IMPORTANT ED BELOW.	YOUR MATC TRAINING IS FOR EVERY
	Very important	Very important	
	Important	Important	
	Not important	Not importa	ur.
	Not applicable	Not ap	plicable
	<u> </u>	<u> </u>	
	☐ ☐ ☐ ☐ Career goals ☐ ☐ ☐ ☐ Job hunting ☐ ☐ ☐ ☐ Job performance ☐ ☐ ☐ ☐ Job enrichment		cational goals
	Job hunting     Job performance		lessional development sonal growth
	Career goals  Career goals  Career goals  Career goals  Career goals  Career goals  Career goals	D D D Part	sonal enjoyment
	□ □ □ Job advancement		

OVER, PLEASE (MORE QUESTIONS ON THE OTHER SIDE)

(Specify)



5.	FOR EVERY LISTED MATC ASPECT BELOW, CHECK SEXPERIENCE.	THE APPROPRIATE BOX, ACCORDING TO YOUR OWN
	Very satisfied	Very satisfied
	Satisfied	Satisfied
	Dissatisfied	Dissatisfied
	Do not know	Do not know
	<u>↑</u>	<b>+ + +</b> +
	Admission requirements	Instructors' grading practices Instructors' out-of-class availability Counselors' availability Overall quality of instruction Curriculum content in major area of study Class size in major area of study Course variety in major area of study Course selection flexibility Course selection flexibility Relevance of MATC training to employment Accuracy of MATC catalog/publications Academic alendar Students' conduct code Course selection/suspension policies Financial aid availability
	Testing procedures  Registration process Fee payment and billing Classroom facilities Laboratory/shop facilities Athletic facilities Personal study areas Racial farmony climate Coverall MATC climate Instructors' attitudes toward students Noninstructional staff's attitudes toward students Student involvement in MATC's policymaking Student participation in cultural activities	Counselors' availability
		Overall quality of instruction Curriculum content in major area of study
	Classroom facilities	Overall quality of instruction  Curriculum content in major area of study  Class size in major area of study  Course variety in major area of study  Course selection flexibility  Relevance of MATC training to employment  Accuracy of MATC catalog/publications  Academic alendar  Students conduct code  Academic probation/suspension policies  Financial aid availability
	□ □ □ □ Laboratory/shop facilities □ □ □ □ Athletic facilities □ □ □ □ Personal study areas □ □ □ □ □ □ Colemate □ □ □ □ □ Instructors' attitudes toward students	Class size in major area of study     Course variety in major area of study
	Athletic facilities Personal study areas	□       □       Course variety in major area of study         □       □       □       Course selection flexibility         □       □       □       Relevance of MATC training to employment         □       □       □       Accuracy of MATC catalog/publications         □       □       □       Academic alendar
	Racial I armony climate Overall MATC climate Instructors' attitudes toward students Noninstructional staff's attitudes toward students Student involvement in MATC's policymaking	Relevance of MATC training to employment
	Overall MATC climate Instructors' attitudes toward students	☐ ☐ ☐ Accuracy of MATC catalog/publications ☐ ☐ ☐ ^cademic alendar
	Noninstructional staff's attitudes toward students  Student involvement in MATC's policymaking	□ □ □ Students' conduct code □ □ □ □ Academic probation/suspension policies
	Noninstructional staff's attitudes toward students  Student involvement in MATC's policymaking	□ □ □ Academic probation/suspension policies □ □ □ □ Financial aid availability
	Student participation in cultural activities  Student participation in sports activities	☐ ☐ ☐ Financial aid availability ☐ ☐ ☐ Other
	Student participation in sports activities	(Specify)
6.	FOR EVERY LISTED MATC SERVICE BELOW CHECKNOWLEDGE AND USAGE OF THE SERVICE.	K THE APPROPRIATE BOX, ACCORDING TO YOUR
	Used the service and was satisfied with it	Used the service and was satisfied with it
	Used the service but was not satisfied with it	Used the service but was not satisfied with it
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	Did not know about the service	Did not know about the service
		□ □ □ □ Verren Carren
	Admission Registration	☐ ☐ ☐ Veteran Services ☐ ☐ ☐ Child Care
	□ □ □ Testing	□ □ □ Student Center
	Career Planning	□ □ □ Bookstore
	College Orientation Guidance/Counseling	□ □ □ Library □ □ □ Campus Employment
		Campus Employment     Fealth Services
	□ □ □ Tutoring	□ □ □ Cafeteria
	Athletics	☐ ☐ ☐ International Students ☐ ☐ ☐ Job Placement
	Cultural Programs Financial Aid	□ □ □ Job Placement □ □ □ Campus Security
	☐ ☐ ☐ Family and Women's Resource Center	□ □ □ Housing
	□ □ □ Business Office	☐ ☐ ☐ Multicultural Affairs
		□ □ □ Student Newspaper □ □ □ □ Other
•	□ □ □ Student Senate/Organizations	□ □ □ Other(Specify)
7.	CLOSEST RELATIVE OR FRIEND WHO DOES NOT LIV	E AT YOUR HOME ADDRESS (PLEASE PRINT).
	Name	Relationship
•	Address	Phone
W 277-Minter	Street City	State Zip



# APPENDIX E

## ASS Educational Planning Form

Keep the gold copy of this form with you Today's date during your attendance at the institution. **BACKGROUND AND PLANS SUMMARY** 13. ENROLLMENT PLAN (Please print) Credite plenned first term Time Term NAME OF CAMPUS 🔲 t. Fall I. Day 2. Winter 2. Evenina Lest D 2 Soring a. Day and evening Addross 4 Summer I 5. Summer II State 14. CAREER GOAL Type of work or name of occupation Career code (see ket) Student/Social Security number Aron code Tolophone number How sure are you of your choice in number 14? 1. Very sure 2. Fairty sure 3. Not sure 3. DATE OF BIRTH 15. INTEREST REGION (from ACT, GPP, VIESA, DISCOVER) 4. IS ENGLISH YOUR FIRST (PRIMARY) LANCIT GE? I YOU I 2. NO 16. EDUCATIONAL "4AJOR 2 Formula 5. SEX I Maio OR PROGRAM Program code same of first choice 1 Yes 4. ARE YOU A VETERAN? 2. On active duty (see HsU How sure are you of your choice in number 18? 7. ETHNIC BACKGROUND 1. Very sure 2 2. Fairly sure 3. Not sure 1 Vack/Alro-American 6 Puerto Rican/Cuban/Other Hispanic \$17. EMPLOYMENT HOURS PLANNED PER WEEK WHILE ENROLLED 2 American Indian/Alaskan Nutive 7 Filipino D 5 21-30 1. None D 3 11-15 THE OTHER 3 White/Caucasian a. 31 or more D 2 1 10 **1** 4, 16-20 U. Prefer not to respond 4. Mexican American/Chicano 18. AMOUNT OF EDUCATION PLANNED 5 Asian/Pacific Islander I. Classes only, no certificate or degree TYPE OF HIGH SCHOOL CERTIFICATE 2. One- to two-year certificate or diploma program 3. Two-year college degree 1 High school diploms 4. Four-year college dagree 5. Graduate or professional study beyond four-year degree C 2 GED 5 Foreign secondary 3 Proficiency exam ☐ 6 Not a high school graduate 19. CONSIDERING TRANSFER TO ANOTHER SCHOOL LATER? 4 Continents of completion 7. Still in high school 4. Not planning to transfer III I. Two-your college 3. Other type of institution Name of tright school State H.S. code (Inil non) 9. CREDITS EARNED AFTER HIGH SCHOOL Stato Institution code Name of institution being considered CIIV (see Hst) 20. MOST IMPORTANT REASON FOR ATTENDING THIS TERM 10. HIGHERT DEGREE/CERTIFICATE EARNED AFTER HIGH SCHOOL 1 Losion skills to get a new job 5 Improve basin skills in Lingilals, Debrieffe for over 1 [] C 8 Bachelor's degree [] 2 Loom skills to advance in job reading, or make ☐ 6. Take courses for personal 2 Borne credits/courses [] 6 Master's degree or beyond 3. Transfer to four year college [] 3 Certificate or diploma 7. Offer ... interest [ 4 Satisfy general education 7. Other 4 Associate degree requirements 11010 21. PLAN TO EARN CERTIFICATE OR TWO-YEAR DEGREE? Last school attended after high school City State Institution code 13 Unitocklod (non list) L. I You Iwo-your degree [] 4 No 2 Yes, conflicate or diploma 11. OVERALL HIGH SCHOOL GRADE POINT AVERAGE D & C - to C (1.5-19) [] + A - 10 A (3.5 - 4.0) 2 B to A. (30-34) [] 6 D to C - (1.0 1.4)



[] 9 B 10 B (25-2.9)

1 4 C to B- (20-24)

1 7 D to D (0 5 0 9)

# of years Last grade # of years studied received studied received studied received studies    1 English	g nasessment results)	25. COU		cint nict y work ng English ng skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills skills	
educational programs and related opportunities.		Nan	ne and code		( elephone number
Student's signature	Date				
SKILLS ASSESSMENT SUMMARY  A Language Usage Skills  B Reading Skills  C Numerical Skills  D Study Skills  E Elementary Algebra  G College Algebra  G College Algebra  H. Advanced Language Usage  K Space Relations  L Mechanical Reasoning	Area English/Writing/ Communications Reading Mathematics Study Skills Additional Courses	Institutio Dept./Numb	n Recommen	use name	Student's Plan Dept./Number Course name
V Control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the cont	1,	6. 7. 1. 1. 8. 1. 1. 9.			
●1956 by The American College Testing Program. All rights reserved	WHITE Institut	Non CANATIY	Institution Pl	NK - Countelor-	advisor GOLD - Studoni 1908/086
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